

# Populasi

JURNAL KEPENDUDUKAN DAN KEBIJAKAN

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# Populasi

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## PREFACE

At the end of 2023, the editorial has published *Populasi* Vol. 31 Issue 2 December 2023 which consists of eight articles. The main theme of this edition's *Populasi* is about population and policies.

The first article written by M. Akbar Hasyim Lbs and Dewi Kurniawati highlights *Relational Dialectics on Couples of Childbearing Age in Underprivileged Chinese Ethnicity Families in the Use of Contraception in Medan City*. According to them, the people in this study tend to be more able to cope with the internal dialectics which occur than the external dialectics of contraceptive use. Meanwhile, the dialectic resolution strategy used by respondents in resolving internal dialectics tends to use a balance strategy and in resolving external dialectics using an integration strategy.

Furthermore, the second article written by Muh Chalik Marwadi examined the *Determinants of Female Fertility Based on Social and Cultural Perspectives in South Sulawesi Province*. His research used the data from 3,108 women aged 15 to 49 years old from the 2017 Indonesia Demographic and Health Survey (IDHS). Apart from that, in-depth interviews were also conducted with female respondents aged 15 to 49 years old as the main research subjects. On the quantitative data, binary logistic regression analysis was carried out to test the determinants of fertility and the results showed that education, work status, media exposure to family planning, use of contraceptives, and area of residence had affected fertility. Furthermore, there are also cultural phenomena, such as money panic, which influence women's fertility.

On the other hand, Annisaa, et.al. wrote about *Modeling the Human Development Index Seen from the Aspect of Public Health in East Java*, as the third article. Finding a prediction model for HDI in terms of public health development indicators was the aim of this study. Results show that the variables of toddler health, reproductive health, health services, health behavior, non-communicable diseases, and environmental health are significantly related to HDI. Based on this model, it is necessary to pay more attention to health services, health behavior, and trends in non-communicable diseases in the community to increase the HDI rate in East Java Province.

The fourth article is written by Raihan Chaerani Putri Budiman, et.al. which describe the *Gender-Based Development Discourse and Its Impact on Women Informal Workers in Yogyakarta*. Gender-appropriate roles need to be supported by efforts to optimize the role of women to bring about active participation in the development and eliminate inequality experienced by women. One way to realize gender-based development is through empowering women in informal work. The results of this study indicate that gender-based development in D.I. Yogyakarta has yet to succeed in reaching the understanding of the community, especially women informal workers.

Next is the fifth article discussing about *Expectations of Educational Continuity among Beneficiary Families of the Indonesian Conditional Cash Transfer (PKH) in Tabuan Island, Tanggamus Regency*. This article is written by Setiyo Nugroho, et.al. According to the authors, PKH's positive impact on elevating beneficiary families' educational expectations. The analysis showed significantly higher educational expectations among PKH families compared to non-PKH families, particularly when excluding other educational assistance. This highlights the importance of positive educational information and the potential of information technology

in supporting their children's education. However, it is concerning that despite having high expectations, families receiving PKH on Tabuan Island face challenges in ensuring their children's access to college education.

On the other hand, Collaborative Governance Process in MSMEs Empowerment through Desa-Preneur Program in Sidoarum Village, Yogyakarta is an article by Sita Agung Trisnantari, et.al which is also the sixth article for this issue. The authors found that collaborative governance indicators have not been fully implemented. The role of Lurah as program leader has not been maximized in carrying out the role as a program leader. Not all MSMEs actors participate in mentoring routinely and village economic institutions have not been formed. Several program achievements have been fulfilled, but still require consistent implementation of learning outcomes. Desa-Preneur Program in Sidoarum Village must be synergized with other programs and needs to involve other government institutions that support local MSMEs empowerment.

The seventh article is written by Dede Syahril Sidik, et.al. and highlights the School Information System Innovation by Eduversal through Edunav Implementation in Indonesia with a case study in SMP-SMA Kesatuan Bangsa Bilingual Boarding School Yogyakarta. The authors mentioned that there are several factors which encourage the implementation of the Edunav Information System at the Kesatuan Bangsa School, which are: complex problems occur in the field as there is no integrated system; manual data processing which is recorded in books; the existence of school initiatives to make changes from conventional to digital schools by increasing the use of information technology; increasing competitiveness among schools is significant, especially for private schools.

Last but not least, the last article which is the eighth article discusses the Implementation of Exemplary Leadership in the Unit Development in Arhanud 003/ARK Detachment, in Cikupa, Tangerang. The article is written by Sistra Bayu Sughoro, et.al. According to them, unit development is positively influenced by the implementation of Exemplary Leadership in the practices of Challenge the Process and Encourage the Heart, while other factors (Model the Ways, Inspire a Shared Vision, Enable Others to Act) are not that influential. This is because there are still obstacles and barriers in the unit development at the Arhanud 003/ ARK Detachment which require innovative strategies and ideas as well as members who are always optimistic in improving the unit development at the Arhanud.

Thus, these eight articles are the articles color the content of Populasi December 2023 edition. Hopefully, these articles are useful and can increase the scientific insight of all readers. Have a pleasant reading. Thank you.

December 2023

**Editor in Chief,**  
Muhadjir Darwin

## Relational Dialectics on Couples of Childbearing Age in Underprivileged Chinese Ethnicity Families in the Use of Contraception in Medan City

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### Abstract

Dialectics in the form of contradictions in relationships which can occur due to various things and problems in couple life, as well as in determining the decision to carry out a family planning (KB) program or in determining the use of contraception. This research aims to analyze how the condition of internal and external dialectics and the strategies for resolving internal and external dialectics on couples of childbearing ages in underprivileged families of Chinese ethnicity in Medan City. The research approach uses a combined approach with a mixed methods model embedded design in data collection techniques and data analysis techniques. Therefore, the data produced is quantitative data to answer the internal and external dialectical condition, and qualitative data to answer strategies for resolving internal and external dialectics. Researcher prioritize quantitative data obtained from 100 respondents, while qualitative data collected through focus group discussion with 6 resource persons as informants are meant to complement the data and elaborate the analysis results more fully. The results of the study based on quantitative data with descriptive statistical analysis showed the condition of internal dialectic variables obtained an average value of 4.10 and the external dialectic variables obtained an average value of 3.49 on a 5-point Likert Scale. Based on the assessment criteria using the grand mean analysis, both are in a relatively stable condition. However, this value means that the respondents in this study tend to be more able to cope with the internal dialectics which occur than the external dialectics of contraceptive use. Meanwhile, the dialectic resolution strategy used by respondents in resolving internal dialectics tends to use a balance strategy and in resolving external dialectics using an integration strategy.

**Keywords:** relational dialectics; couples of childbearing age; Chinese contraception

### Introduction

In a husband-and-wife relationship, a disagreement is a common thing in determining the decision to be made. Szczesna & Basista (2019: 406) explains that conflict in marriage occurs naturally and is a feature of a close relationship between two people who have different views from

time to time and thus express differences of opinion or mutual expectations. Dialectics in the form of contradictions in relationships which can occur due to various things and problems in the life of a couple, as well as in determining the decision to run a family planning (*Keluarga Berencana*) program or in determining the use of contraceptives.

Lubis & Wijaya (2017: 54) reveals that the Government of Indonesia through the National Population and Family Planning Agency (BKKBN) initiated a family planning program to control the fertility or birth rate of Indonesian citizens. This program is realized by regulating births using contraceptives, such as pills, condoms, injections, contraceptive devices (IUDs), implants, women's medical operations (tubectomy), and men's medical operations (vasectomy).

Husband and wife who are referred to as couples of childbearing age are potential to face problems in arranging the birth of children if they cannot access the family planning program, especially for Chinese ethnic couples of childbearing age in the city of Medan. Lubis (2012: 16) reveals that Chinese people in the city of Medan are still exclusive, such as in choosing a place to live, shopping for daily needs, or choosing a school for their children. This does not rule out the problem of running a family planning program to regulate childbirth. According to Burhan & Sani (2014: 30), the people of the city of Medan in general have negative prejudice against ethnic Chinese because somehow they become threats for the natives, either in the values, culture, morality or threats in the economic, political, and welfare. So, it becomes natural if the natives treat the Chinese ethnic around them differently.

The Chinese culture, which embraces patrilinealism, greatly influences the perception of the Chinese community to have more children. According to Tan (in Aris, et.al., 2019: 30) people of Chinese ethnic descent do not have strong aspirations regarding the number of children. However, there is a strong aspiration to have at least one son due to the strong patrilineal line.

The researcher believes that the problem becomes more complex when the couple of childbearing age from the Chinese ethnic is included in the category of underprivileged families. There are five stages of family

welfare categories based on indicators created by BKKBN: underprivileged families, prosperous families I, prosperous families II, prosperous families III, and prosperous families III-plus (Ninditama, 2021 :38) According to Sunarti (Wardani, 2014), an underprivileged family is a family whose can only meet minimal basic needs, specifically food, clothing, shelter, health, and religious instruction but has not been able to fulfill one or more of the indicators of a prosperous family stage I. Meanwhile, stage I prosperous families are families whose have met minimum basic needs, but have not been able to fulfill their social and psychological needs, such as worship, eating animal protein, clothing, having space for family interaction, having an income, being able to read and write in Latin and having family planning. The following are the indicators for a prosperous family in stage I (Ninditama, 2021: 38).

- a. In general, family members eat two or more times a day
- b. Family members wear different clothes at home, work, school, or when traveling
- c. The house one lives in has good walls, roof and floor
- d. If their child is sick, they will bring them to the health facility, or a couple of childbearing age wants to have family planning
- e. Go to a contraceptive service facility if couples of childbearing ages want to use birth control
- f. All children attend school, especially children aged 7-15 years in the family

Apart from the exclusive culture and behavior of Chinese people, it is also difficult to access information on free family planning services, which resulted in the reluctance to participate in these activities. Based on the results of the 2021 family data collection conducted by BKKBN (2022), Medan City is one of the areas in the lowest category of family planning prevalence rates. This is interesting to study further considering

that ethnic Chinese are one of the majority ethnicities in Medan city.

Apart from private dialectics in husband-and-wife relations, there is also a public dialectic which refers to the tension between private relations and public life. This means that dialectics does not only occur internally in husband-and-wife relations, but can also be found outside these private relationships, or it is also called external dialectics. Rawlins (in West & Turner, 2018: 195) calls these contextual dialectics, which means that they derive from the place of the relationship in the culture. The public and private dialectic refers to the tension between the two domains, a private relationship, and public life.

Communication is central to organizing and negotiating contradictions in relationships. With the perspective of relational dialectics theory, contradictions are created on the basis of communicative actions of a person, and through that communication we can manage existing relationships. Dialectical tensions which lead to a conflict in a relationship are certain to occur. Not only in the life between two individuals but also in the broader context of life. Basically, every human being is different and on the basis of these differences, one must understand and accept the differences existing. By understanding these differences, conflicts in life, such as contradictions or differences in desires, misunderstandings, likes, and dislikes can be resolved properly and can even bring existing relationships closer.

To be able to parse more clearly about dialectics in a relationship, Baxter & Montgomery came up with the theory of relational dialectics. According to Baxter (in Griffin, 2012: 154-160), every personal relationship will face the same tensions. From a relational dialectical perspective, relationships bond in a system of interdependence with others and mutual independence from others. So, dialectical tension is a natural product or inevitable outcome of our conversations resulting from a motive force which guides

what we say in them. Despite the fact that we tend to think of conflict as destructive to our relationships. Baxter and Montgomery believe that these contradictions can be constructive. There are 3 major contradictions that arise in this theory.

1. Integration - Separation: The contradiction between connection and autonomy is a major tension in all relationships. If one party is too strong in the tug-of-war between "me" and "us", then the relationship is lost. No relationship works unless the parties sacrifice some individual autonomy.
2. Stability - Change: In a relationship we have a desire for a stable relationship, creating a sense of security, but also have a desire to try or get new things that show intimacy in the relationship. Like a touch of spontaneity, the occasional surprise is needed for fun. Without the spice of variety in the relationship, the relationship becomes boring and will die emotionally.
3. Expression - Nonexpression: As the conclusion of social penetration theory explains, disclosure and privacy occur in cycles, or wave-like, over time. In this theory, Baxter and Montgomery agree that relationships are not on a straight path to intimacy. There are pressures for openness and closedness or increase and decrease.

Baxter in his research entitled *Dialectical Contradictions in Relationship Development* which examined 106 lovers found that relationship satisfaction was not significantly correlated with the existence of contradictions but correlated with how or how these contradictions were managed. Therefore, Baxter & Montgomery (in Cools, 2011: 53-55) identify eight strategies in responding to dialectics, to be specific by disorientation, cyclic alternation, segmentation, compromise (balance), integration, reframing, reaffirmation, and denial.

Research related to relational dialectics in the past is dominated by qualitative interpretive studies which focus their studies on dialectics textually. Baxter & Scharp (2015: 4) acknowledges that so far, this research tradition has been dominated by the use of interviews and narratives. They further recommend that researcher from an interpretive qualitative perspective need to adopt a wider range of data collection and analysis methods in the hope of benefiting from a more concerted effort to develop more dialectic theories.

Based on the background of these problems, the researcher is interested in seeing and studying further how internal and external dialectics are and how to resolve the dialectical tension which occurs in couples of childbearing underprivileged Chinese ethnic families in Medan City in the use of contraceptives using a quantitative approach in order to obtain a comprehensive picture and extensive knowledge of the current situation.

## Methods

This research uses a combined approach. Research with a combined approach which is also referred to as multimethodology is a research approach which combines methodology and analysis of quantitative and qualitative data. This approach tends to rely on a pragmatic paradigm (Muslim, 2018: 81). Therefore, the research method used in this study is a mixed method. The term mixed methods in research basically does not mix methods but uses various methods from the two approaches to answer each question which arises from the same phenomenon. One particular question requires a particular method to answer it, while the final results will be integrated to complement each other in a research report (Senjaya, 2018: 115).

In this study, the mixed methods model used is the embedded design model, which combines data collection techniques and

data analysis techniques. Therefore, the data to be generated are in the form of quantitative data and qualitative data. Researcher prioritized the quantitative data collected from questionnaires by respondents, while qualitative data was collected through focus group discussion (FGD) with several informants who were also part of the research respondents. The qualitative data is used to ensure validity and complement the quantitative data, as well as to elaborate on the results of the analysis more fully.

Quantitative data collection was carried out by distributing questionnaires to 100 respondents, including the predetermined criteria. In this study, because the population size is not known with certainty, the sample size was calculated using the Cochran formula (Sugiyono, 2019: 136) as follows.

$$n = \frac{z^2 pq}{e^2} \quad (1)$$

Additional information:

n : Number of samples required

Z : The level of confidence required in the sample

p : True Chance 50%

q : Wrong Chance 50 %

e : Margin of Error

The confidence level used is 95% of the Z value with a value of 1.96 and a margin of error level of 10% = 0.1. So, the total sample size in this study is as follows.

$$n = \frac{(1,96)^2 (0,5)(0,5)}{(0,1)^2}$$

$$n = \frac{(3,8416) (0,25)}{(0,01)}$$

$$n = \frac{(0,9604)}{(0,01)}$$

$$n = 96,04 \text{ (Fulfilled = 97 person)}$$

Based on these calculations, the minimum sample size which can be used is 97 respondents or in this study rounded up to 100 respondents. Meanwhile, qualitative

data collection was carried out using focus group discussions (FGD) with 6 participants consisting of 3 men and 3 women who were considered able to provide information addition. Referring to the embedded design model in this study, the research flow uses the convergent design proposed by Creswell (2020: 7). Creswell explains that a convergent design begins with collecting quantitative data and qualitative data, then analyzing the data sets, then combining the results of the analysis with the aim of validating one data set with another.

In this research, the data collection technique was carried out by distributing questionnaires to obtain primary data. After the primary data was received, the researcher continued to collect qualitative data through FGD interviews with several informants to enrich the findings. Even though the informants involved in the FGD were only a small portion when compared to the entire research sample, it was intended to develop or enrich the results of this study. Both types of data were then analyzed descriptively

respectively and continued with discussion and conclusion. Descriptive analysis in this study is intended as a research procedure that seeks to produce descriptive explanations of the findings occurring in research based on data in the form of numbers which have meaning or findings through FGD. Therefore, this study will systematically describe the facts and conditions of the characteristics of a particular area of interest factually.

Quantitative data analysis is carried out by descriptive statistics. Using a 5-point Likert Scale, the respondent's answer score obtained is then compiled into assessment criteria using grand mean analysis for each indicator. According to Everitt (Nahar, et.al., 2022) assessment criteria using grand mean analysis are used to determine the condition of each variable by dividing it into several specified categories. The categories of respondents' answers in this study are divided into 5 categories, specifically very low, low, medium, high, and very high with the following division:  $\text{Scale Range} = (5-1) / 5 = 0.80$ . Each category has a scale range of 0.80.

**Table 1. Respondent's Answer Assessment Category**

Score	Category
1.00 – 1.80	Very low or indicates a very unstable variable condition
1.81 – 2.60	Low or indicates an unstable condition of the variable
2.61 – 3.40	Medium or indicates a moderately stable condition of the variable
3.41 – 4.20	High or indicating a stable condition of the variable
4.21 – 5.00	Very high or indicating a very stable variable condition

Source: Author's processed results

## Result and Discussion

### *Internal Dialectics of Couples of Childbearing Age in Underprivileged Chinese Ethnicity Families*

Based on the current findings, only 18 percent or 18 couples of childbearing age in poor ethnic Chinese families admit to using contraception, while 82 others admit

not to use contraception. From the 18 respondents who used contraception, 9 people or 50% of them stated the reason for using contraception was because they wanted to postpone children and the other 50% stated the reason for not wanting more children. The use of contraceptives is part of a family planning program which aims to regulate birth spacing, and reduce maternal and infant mortality due to pregnancy at too

young or too old in age. This condition of very low use of contraceptives shows that the reproductive health messages initiated or related to family planning were not conveyed well to those in underprivileged ethnic Chinese families.

From the 82 respondents who admitted that they did not use contraception, researcher found various reasons. The respondents explained the reasons they were reluctant to use contraception, apart from the reason "wanting children soon" which was chosen by 29 respondents or 35.36 percent, other very dominant reasons were "not receiving information about services" and "lack of partner support" which respectively 24.39 percent and 23.17 percent. The high percentage for reasons of "not receiving service information" and "lack of partner support" stated by respondents is possible due to the minimal direct intervention in health promotion or family planning health services which is usually carried out by a family planning instructor to meet the community in order to increase public awareness about reproductive health issues. Apart from that, 7 people out of 82 respondents who did not use contraception said they were "pregnant" and 7 other people said they had "no money" as the main reasons for not using contraception. Referring to the results of research conducted by Handayani (in Lontaan, et.al., 2014: 30), income also has a close relation with the respondents' choice of contraception. Respondents with better economic status will choose to use long-term protection which is relatively expensive. The level of socio-economic status of a couple will be related to the ability to buy contraceptives to be used. For example, families who are sufficient will be more able to participate in the family planning program than families who cannot afford it because for

families who are less well-off, family planning is not a basic necessity. The results of the research conducted by Handayani are in line with the findings in this research, that out of 18 people who used contraception, only 8 people or 44.40 percent of them chose to use long-term contraception, that is tubectomy (Women's Medical Operation) for 7 people and Implant for 1 person. Researcher who see this opportunity point out that there is a contextual contradiction, especially in the context of underprivileged families, that is between their decision to fulfill their basic needs (clothing, food, house) and fulfill their desire to use contraception.

Contradiction is something which is absolute to occur in the relationship between husband and wife. This situation is unavoidable for married couples who have been in a relationship since the early stages of marriage to the mature age of marriage. There are three major contradictions which occur in internal dialectics, to be specific connection-autonomy, certainty-uncertainty and openness-closedness. According to Griffin (2012: 154-160), contradiction is a core concept of relational dialectics. Contradiction is a dynamic interaction between united oppositions.

In the internal dialectic variable, there are three dimensions, specifically the intimacy dimension (connection-autonomy), the certainty dimension (certainty-uncertainty), and the openness dimension (openness-closedness). Each dimension has its own measurement indicators and the intimacy dimension has three indicators, that is passion, commitment, and closeness. The certainty dimension uses two indicators, specifically dependence, and trust in the relationship and the openness dimension uses indicators of breadth and depth of conversation.

**Table 2. Descriptive Statistics of Internal Dialectic Variables**

Dimension	Indicator	Mean	Category
Intimacy	Passion	3.99	High
	Commitment	4.15	High
	Closeness	4.03	High
Certainty	Dependence	4.27	High
	Trust	4.02	High
Openness	Breadth of Conversation	4.18	High
	Depth of Conversation	4.09	High
<b>Total</b>		<b>4.10</b>	High

Source: Primary Data, 2023

Baxter (in Putri, et.al., 2021: 227) in his theory explains that autonomy-connection is the most central contradiction compared to the other two contradictions in interpersonal or internal relationships. Relationships will not be formed unless the parties involved give up their autonomy. However, excessive connection will actually damage the relationship because it can eliminate the individual entity itself. Conversely, a situation which is too inclined to autonomy will damage individual identity because connections with others are important in forming identity and maintaining relationships. This means that a balance is needed in dealing with the autonomy-connection contradiction which occurs in a relationship.

The autonomy-connection contradiction in this study is represented in the intimacy dimension which is measured by three indicators, specifically passion, commitment, and closeness. The three indicators showed relatively high or good scores, getting an average score of 3.99; 4.15, and 4.03 respectively. Based on this data, researcher see the respondents were able to overcome the internal dialectics in the autonomy-connection contradiction which occurred, especially regarding the use of contraceptives. Each statement associated

with the intimacy of the respondents showed a relatively high value.

Among the three indicators, the commitment indicator obtained the highest average score of 4.15. This shows that commitment is something which is best maintained and maintained in a relationship despite the dialectics which can sway household harmony. According to Zhafirah (2020: 102), commitment is the most basic thing in building a household. Commitment must be held tightly by husband and wife so that the relationship is considered successful, problems will be resolved if the couple is concerned with the sustainability of the relationship and they remember the main goal from the beginning of the relationship. Couples who are oriented towards protecting their relationship will always be able to survive. A commitment is implemented with hard work and putting aside personal ego. Meanwhile, the passion indicator obtained a lower average value than the others. This means that passion in a domestic relationship is more difficult to maintain or more dynamic than commitment or closeness when contradictions occur.

In the second contradiction, that is certainty-uncertainty, which is represented in the certainty dimension, the results are

also relatively high. The average value of the two indicators in the certainty dimension shows 4.27 for the dependence indicator and 4.02 for the trust indicator. Both indicators actually indicate that when dialectics related to contraceptive use occur in relationships, dependence and trust in partners are still relatively high. However, the distance between the scores of the two indicators is quite far, meaning that dependence experiences stronger stability than trust. Asmarina & Lestari (2017: 240) argue that interpersonal relationships will produce an attitude of interdependence on each other. The form of interpersonal relationship which has the strongest level of dependence is the husband-and-wife relationship in marital life.

The third contradiction is openness-closedness which is represented in the openness dimension. Openness itself can actually be a barometer and measure of quality in interpersonal relationships as revealed by Zhafirah (2020: 100). Through openness which is strengthened by mutual trust and supportive attitudes, there will be an urge to understand and appreciate each other and most importantly develop mutual quality in interpersonal relationships.

The results obtained from statistical data on the openness dimension also show a relatively high average number. As for each indicator, the breadth of conversation has an average score of 4.18, and the depth of conversation with a score of 4.09. When compared between the two, the depth of conversation has a greater effect on the dialectic which occurs than the breadth of conversation.

Based on the results of descriptive statistical analysis on the average value of the internal dialectic variable, it shows an

average score of 4.10. This figure refers to the high category, meaning that even though they are experiencing an internal dialectic situation related to the use of contraceptives, the respondents show a relatively stable condition or in other words when there is a conflict in determining the use of contraceptives, the respondents are able to cope with the dialectic that occurs properly.

#### *External Dialectics of Couples of Childbearing Age in Underprivileged Chinese Ethnicity Families*

The external dialectical condition in question is a condition of dialectical tension faced by couples of childbearing ages in poor Chinese ethnic families and their social environment. In this case, it is related to the tension in the decision to use contraceptives. This tension can be illustrated by three external contradictions in the theory of relational dialectics, specifically the contradictions of inclusion-seclusion, conventionality-uniqueness, and revelation-concealment. These three contradictions occur between the couple and the public or their social environment.

In this variable, there are also three dimensions which will be measured. First, the dimension of friendliness (inclusion-seclusion) which is choosing to participate or choosing to set boundaries with others as measured by the social distance indicator. The second dimension is social inclusion (uniqueness-conventionality) which will be measured by two indicators, that is social participation and social engagement. The third dimension is revelation-concealment which will be measured by the social trust indicator.

**Table 3. Descriptive Statistics of External Dialectic Variables**

Dimension	Indicator	Mean	Category
Friendliness	Social Distance	3.60	High
Social inclusion	Social Participation	3.47	High
	Social Engagement	3.54	High
Disclosure	Social Trust	3.38	Medium
<b>Total</b>		<b>3.49</b>	High

Source: Primary Data, 2023

The first contradiction is inclusion-seclusion which is an external form of integration-separation. This contradiction relates to a couple's desire to make their relationship less public or keep it more private. For example, introducing the couple to family, friends, and neighbors living near the house as a form of inclusion or trying to avoid outside pressure or judgment by others as a form of seclusion (Lusk, 2008: 10). This contradiction is represented by the dimension of friendliness. To measure the dimension of friendliness, one indicator is used, that is the social distance indicator which relates to closeness to the social environment. Based on the findings of the social distance indicator, the average score of the social distance indicator in couples when experiencing external dialectics related to contraceptive use is 3.60. The value of 3.60 indicates that the respondents are in a relatively high category, which means that when there is external dialectic, couples of childbearing age can overcome the conditions which occur on social distance, but not optimally.

The conditions which result in social distance not being able to be overcome optimally are very likely due to the majority of respondents being at a certain marriage age. As do Williams, et.al. (2006) divides the marriage cycle into four phases, specifically the initial phase of marriage, the phase of raising children, middle age phase, and

aging phase, so this study will also adopt the four categories of marriage age. Most respondents admitted that they were in 1-10 years of marriage, that is 60 percent or 60 respondents. Meanwhile, there were 37 people who already married for 10-20 years, while only 2 people said they were married for 20-30 years and 1 person had been married for more than 30 years. The age at marriage factor is very likely to make a difference to the external dialectics which occur in a family. In a family, communication is an important aspect of interaction. Each family thinks in its own way, which makes the family a complex organization. The external tensions and dialectics in newly married families will be different from the external dialectics which occur in families with a more mature marriage age. External dialectics will always occur in every married couple and this is because the emotional needs of the couple will not be the same as their social environment.

In the second dimension, the social inclusion dimension (uniqueness-conventionality) is measured by indicators of social participation and social engagement. Social participation means being active in the social environment. Based on the findings of the social participation indicator, an average of 3.47 was obtained, while social engagement obtained an average value of 3.54. This figure also shows a relatively high category and can be interpreted in the

same way as the previous dimension, that respondents are able to cope well with the condition of external dialectics, which has an impact on their social participation and social engagement which are in the high category, but not yet maximized. Cultural issues also tend to influence the social inclusion dimension. The individualist-collectivist contradiction can clarify the situation when an individual or couple wants to exercise personal esteem, but on the other hand, must also act as social beings who act according to social norms. This is also found in the marital relationships of couples of childbearing ages in underprivileged ethnic Chinese families in Medan City. Ethnic Chinese couples of childbearing ages in Medan City do not escape the negative stigma in the community. The stigma of society also causes the emergence of dialectics in the external order, especially in the dimension of social inclusion.

The third dimension in the external dialectic is the revelation-concealment dimension. This dimension is measured by one indicator, that is the social trust indicator. Social trust means the degree of trusting other people and their social environment. Based on the results presented in the research results, there is an average value of the social trust indicator of 3.38. This means that when experiencing external dialectics, the respondents' social trust conditions are still fairly moderate or quite stable. Compared to the previous two indicators, the social trust indicator experiences a more unstable situation, this can occur because the couples of childbearing Chinese ethnic experience a loss of social trust due to the negative stigma condition which is still attached to them.

Based on the results of descriptive statistical analysis on the average value of the external dialectic variable, the average score which appears is 3.49. This average value refers to the high category, meaning that when experiencing an external dialectic situation related to the use of contraceptives

the respondents showed a stable condition or in other words when there was a conflict in determining the use of contraceptives, the respondents were able to cope with the dialectics which occurred well.

### *Strategies for Resolving the Internal Dialectic of Couples of Childbearing Age in Underprivileged Chinese Ethnicity Families*

As a step to address the dialectic occurred, a dialectic resolution strategy is needed. Dialectical resolution strategies are included in the praxis element in relational dialectical theory. This element explains that humans can act as decision-makers. Individuals are considered active and conscious in making these decisions. More specifically, the concept of praxis based on Hegel's view (in Seo & Creed, 2002: 230) consists of three aspects, as specified below.

1. Self-awareness: which is a person's critical understanding of their social conditions. It appears when one needs and interests are not met.
2. Mobilization of actors: inspired by a new understanding of their condition and social conditions
3. Multilateral action or collective action: action to reconstruct oneself and the existing social order.

In relation to aspects of self-awareness in the praxis element in Chinese ethnic groups in Medan City itself, it is still found that there are values in community groups which state that men or husbands must have more dominance than wives. Based on the results of FGD conducted in this study, it can be said that the normative view of Chinese ethnic community groups towards decision-making in the household still emphasizes the role of men as a family. In Chinese ethnic culture, according to Meij (2009: 78), the role of men in Chinese families is more dominant, where the father will control all family members, family property, and a father as a

man who will make all decisions regarding the family. Meanwhile, the position of women in Chinese families is generally not too valuable compared to men. The position and role of men are very privileged and glorified because they act as leaders, breadwinners, and bearers of the honor of the family name in society.

Previous research conducted by Lusk (2008: 2) illustrates that tension exists in relationships, then gender and relationship status are the variables that most strongly influence attitudes towards dialectical tension.

This previous research also reinforces the assumption that gender differences will also influence decision-making strategies in the dialectical tension which occurs. This is evident even though the male informants did not explicitly state that wives must fully follow their husbands, but their statements show the dominance that they are the leaders in the household. As said by informant 5 (male/30 years old) and informant 6 (male/29 years old) that they served as protectors and acted as family leaders.

**Table 4. Internal Dialectic Resolution Strategy**

No.	Internal Dialectic Resolution Strategy	Amount	Percentage
1	Compromise to find the best way (balance)	39	39
2	Concede with your partner (disorientation)	21	21
3	Finding and Unifying Common Ground (reframing)	13	13
4	Accepting and then concluding your own decision according to principles (integration)	12	12
5	Rejecting the Spouse's Opinion (denial)	6	6
6	Following his/her wishes first and then asking him/her to follow mine (cyclic alternation)	4	4
7	Not caring and believing the debate will never end (reaffirmation)	4	4
8	Looking for other arguments that put the other person in a bad light (segmentation)	1	1
<b>Total Amount</b>		<b>100</b>	<b>100</b>

*Source:* Primary Data, 2023

The interesting thing about the findings of this research is that even though the self-awareness aspect of the informants leads to normative values that emphasize the role of men who dominate the household, the strategy with the statement "Compromise to find the best way with your partner" was chosen by 39 people or 39 percent of the total respondents, and this strategy was the choice most frequently chosen by respondents. Actually, in each problem, a person can apply different strategies in overcoming dialectical tensions in the household. As it happens

in the case of the couples of childbearing ages of ethnic Chinese underprivileged families who were also respondents of the study chose to compromise to find the best way as the best strategy to resolve internal dialectical tensions related to the use of contraceptives. The results of the FGDs on the collective action aspect in this study also reinforce the findings related to the internal dialectical resolution strategy of couples of childbearing ages from underprivileged Chinese families in Medan City. This is reflected in the informants' answers during

the FGDs, which stated that they chose to discuss or compromise in resolving domestic contradictions as expressed by informant 1 (female/44 years old), informant 2 (female/36 years old), informant 3 (female/28 years old), informant 5 (male/30 years old) and informant 6 (male/29 years old). This means that there has been a shift in normative values in ethnic Chinese husband-and-wife relationships which emphasize the role of men who dominate in the household, and the role of women is also considered important so that compromise to find the best way as the best strategy to resolve internal dialectical tensions in ethnic Chinese couples. This is reinforced by previous research conducted by Sulaeman & Homzah (2013) on the values of the status and role of women in the family structure found a bargaining process in the dialectical process shows that there has been a shift in values toward the position of women who work in the household.

The female informants seem to prioritize compromise and conversation, as reflected in the answers to the FGD results regarding the mobilization of actors and the collective actions of female informants who prioritize dialogue or compromise strategies to find the best way as strategy for resolving internal dialectics. In a previous study conducted by Szczęśna & Przybyła-Basista (2019: 415), they also found that the only constructive conflict resolution strategy for a wife is the information support dialog she receives from her partner. Women need emotional support and supportive messages from husbands are essential in building a right marriage.

The dialectic resolution strategy may also be related to the family communication orientation applied in the husband-and-wife relationship. Communication which occurs in a family can be explained by the family communication pattern theory (FCPT) which is one of the theories trying to describe the types of orientations in family communication. Currently, this theory

has been redeveloped by Fitzpatrick & David Ritchie in 1990 into a revised family communication pattern theory (RFCPT) by dividing two types of family communication types into conversation orientation and conformity orientation. Fitzpatrick & Ritchie (in Koerner & Schrodt, 2014: 4) formulated that family communication with a discussion orientation is a communication pattern between family members who are involved in extensive interactions and topics of conversation in a family. In this type, each family member has the right and freedom to interact with each other without any strict boundaries. Everyone can exchange ideas, experiences, and feelings with each other. All decisions are joint decisions and are not dominated by one party alone. Meanwhile, family communication with a conformity orientation has characteristics which tend to agree with one family member without going through an open discussion process first.

In the case of resolving the internal dialectic of childbearing age couples in underprivileged ethnic Chinese families, they tend to use discussion-oriented family communication. This is reflected in the choice of the majority of respondents who prioritize compromising to find the best way with their spouses as a strategy for resolving internal dialectics. The strategy is identical to the type of discussion-oriented family communication in RCFPT theory.

#### *Strategies for Resolving the External Dialectic of Couples of Childbearing Age in Underprivileged Chinese Ethnicity Families*

According to Christian (2017: 12), Chinese ethnic in Indonesia are divided into several sub-groups based on different dialects, domicile areas, ancestral origins or clans. These variations will reflect the culture, customs, characteristics, and noble values of each sub-group. Subanindyo (in Lubis, 2012: 16) revealed that in Medan City, there

is no ethnic and cultural dominance. Even native cultures such as Malay and Karo tend to fade. Each ethnic group tends to view its own cultural group norms and values as absolute values and are often used to measure and act on the behavior of others. Although the Chinese ethnic community is also not dominant in Medan City, they are able to form a significant cultural influence on the people of Medan City. It is just that open interaction between ethnic Chinese and other ethnicities is still difficult until now. Yusa, et.al. (2021: 5) describe when intercultural communication takes place, there will be differences in frames of reference, these differences make communication more complicated and complex, so it will be difficult to do. The obstacles are mainly because the people involved have not realized the different aspects of culture.

The terms which appear in the general public against Chinese ethnic groups often corner the Chinese community, such as exclusive, arrogant, stingy and so on. Ethnic Chinese are also considered to have several tendencies, such as they are more concerned with achievement motives, and more concerned with personal needs than building social friendships with other groups outside their ethnicity. With this stigma against minority groups, it is quite difficult for communicating with cultural differences. Even if language barriers are not a problem, sometimes people still fail to understand

each other. The negative impact arising from this is the widening of the gap or social distance between ethnicities. Ethnic Chinese become more closed because they are underestimated and not accepted as part of society (Saputra & Muhiroh, 2020: 149). Yusa, et.al., (2021: 5) describe when intercultural communication takes place, there will be differences in frames of reference, these differences make the communication which takes place more complicated and complex, so it will be more difficult to achieve common ground. The obstacles are mainly because the people involved have not realized the different aspects of culture.

In relation to the mobilization aspect of actors in external dialectical praxis, life in the household, whether from the male side or from the female side, will certainly be affected by the social conditions of society. So that the decisions made in the household will cause contradictions and tensions felt by each party. This also applies to the respondents of ethnic Chinese couples of childbearing ages. Tension can also occur as a result of constructing things which come from outside the relationship. The existence of various cultural and ethnic differences also creates diverse cultural characteristics in each family. This happens because cultural differences in general give birth to different family cultures in aspects of life. Each family has value systems adopted from the general culture to address any problems experienced.

**Table 5. External Dialectic Resolution Strategy**

No.	External Dialectic Resolution Strategy	Amount	Percentage
1	Accepting and then concluding your own decision according to the principle (integration)	31	31
2	Compromise to Find the Best Way (balance)	20	20
3	Finding and Unifying Common Ground (reframing)	14	14
4	Rejecting Other People’s Opinions (denial)	13	13
5	Not Caring and Believing the Debate Will Never Finish (reaffirmation)	11	11
6	Give in to Others (disorientation)	6	6
7	Looking for other debates that demonize others (segmentation)	3	3
8	Following his wishes first and then asking him to follow my wishes (cyclic alternation)	2	2
<b>Total Amount</b>		<b>100</b>	<b>100</b>

Source: Primary Data, 2023

The external dialectic settlement strategy is a praxis in addressing conflicts which occur with the social environment. Based on the results of the research analysis, couples of childbearing ages from underprivileged ethnic Chinese families in Medan City tend to carry out integration strategies by “Accepting and then concluding themselves according to principles”. This strategy was chosen by 31% of respondents in resolving the external dialectics occurred regarding the use of contraceptives. This strategy is closely related to the values of honor upheld in the personality of ethnic Chinese people. Ning (in Muas, 2020: 219) explains that the values of honor are listed in the concept of *mianzi* (face). The concept of *mianzi* includes the principle of *gu mianzi* (keeping the face), as well as *baoquan mianzi* or saving face is a primary imperative for all humans as part of society. The strategy of maintaining honor is also reinforced by the results of FGDs on the aspect of collective action with informant 1 (female/44 years old) who stated that if honor is disturbed, it is natural to be angry, but if the input given is good, then they will be happily accepting it. As she said “What

is clear is that if our honor is disturbed, we are understandably angry, but if something is good, we are happy to accept it”.

Compromising to find the best way is also a strategy option which is quite widely chosen in resolving external dialectics. There are 20 respondents prioritized this balance strategy as a solution to the dialectic which occurred. This may also be due to the very multicultural social conditions in the city of Medan so that they are inspired by the existing social conditions then take the initiative to apply a balanced strategy or consider the contradictions which occur because they see both dialectical patterns as having the same legitimacy. So that in the end compromise is considered as a solution to the contradictions which occur in the external order. This result is also very likely related to the values adopted by the respondents in Chinese ethnic culture. Hidayati (2016: 5) said that one of the core values in Confucian teaching is the value of *zhongyong* which can be interpreted as a middle way, humans are required to always act according to the path of balance. This means that this concept emphasizes balance in every situation.

In dialectical settlements, ethnic Chinese respondents tend to seek compromises which integrate different views or interests. They try to find a point of understanding and a fair solution for all parties involved.

## **Conclusions**

Based on the facts of the findings and discussions which have been carried out previously, several conclusions can be detailed from this study.

1. The condition of internal dialectics on childbearing age couples Chinese ethnic on the use of contraceptives in Medan City is known to be well managed or in a stable condition. The average value of the internal dialectic variable shows a score of 4.10. This figure refers to the high category, meaning that even though they are experiencing internal dialectic situations related to the use of contraceptives, the respondents show a relatively stable condition or in other words when there is a conflict in determining the use of contraceptives, the respondents are able to overcome the dialectic condition which occur well.
2. The condition of external dialectics childbearing age couples of Chinese ethnic on contraceptive use in Medan City is known to be moderately manageable or in a less stable condition. The mean value of the external dialectic variable shows a result of 3.49. The average value refers to the high category, meaning that when experiencing external dialectical situations related to the use of contraceptives, respondents show a stable condition or in other words, when there is a conflict in determining the use of contraceptives, respondents are able to overcome the dialectical condition which occurs well.
3. The strategy of resolving internal dialectics in childbearing age couples Chinese ethnic on the use of contra-

ceptives in Medan City generally tends to do a balanced strategy and another option which is also dominantly chosen is the disorientation strategy. In the case of resolving the internal dialectic of childbearing age couples of underprivileged ethnic Chinese families, they also tend to use discussion-oriented family communication.

4. The strategy of resolving external dialectics in childbearing age couples Chinese ethnic on the use of contraceptives in Medan City generally tends to do the integration strategy and another option which is also dominantly chosen is the balance strategy.

The mean value of the internal dialectic variable shows a relatively high or stable condition compared to the external dialectic. It can be concluded that the couples of childbearing ages in underprivileged Chinese families who are respondents in this study tend to be more able to cope with the internal dialectics which occur than the external dialectics of contraceptive use. In relation to the resolution strategy, there is a shift in normative values within the internal sphere, where the role of men who dominate in decision making does not always apply. Cultural, family and economic factors are the most likely to cause the initial symptoms of the emergence of dialectics in the use of contraceptives. On the other hand, it was also found from the 82 respondents, they stated their reasons for not using contraception are they wanted to have children immediately (35.36 percent of respondents or 29 people). Then 20 people (24.39 percent) admitted that they did not receive information about family planning services as the main reason, then 19 people (23.17 percent) admitted that they did not have partner support and the remaining 7 people (17.06 percent) said they were "pregnant" and 7 other people (17.06 percent) said they had "no money" as the main reasons for not using contraception.

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## Determinants of Female Fertility Based on Social and Cultural Perspective in South Sulawesi Province

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### Abstract

The phenomenon of the population continuing to grow rapidly means that the government needs to focus its efforts on controlling fertility. This is because fertility is more complex than mortality, in which a woman can only die once but can give birth many times. This research aims to find out the determinants of fertility from a social and cultural perspective. This research used data from 3,108 women aged 15 to 49 years old from the 2017 Indonesia Demographic and Health Survey (IDHS). Apart from that, in-depth interviews were also conducted with female respondents aged 15 to 49 years old as the main research subjects. On the quantitative data, binary logistic regression analysis was carried out to test the determinants of fertility and the results showed that education, work status, media exposure to family planning, use of contraceptives, and area of residence had affected fertility. Apart from that, there are also cultural phenomena, such as *panaik* money, which influence women's fertility.

**Keywords:** fertility; population; binary logistic regression; women aged 15 to - 49 years old

### Introduction

The population aspect is the most fundamental thing in development. This is because the population is both the subject and object of development. A large population should be accompanied by an even composition and distribution (Jalaluddin & Irwan Suriadi, 2019). Apart from that, if this condition is accompanied by good and adequate population quality, it can be a driving force for development progress (Mahendra, 2017).

A large and high-quality population should be a very useful asset for a country's development (Wicaksono & Mahendra, 2016). The phenomenon of Indonesia's

large population is also characterized by a still high population growth rate. Indonesia's population growth rate in 2020 was 1.25 percent and this figure is still above the average world population growth rate (Statistics Indonesia, 2021). With this average growth rate, Indonesia will add approximately 9,000 babies every day.

Indonesia's large population is not accompanied by the high quality of the population (Jalaluddin & Irwan Suriadi, 2019). This can be seen in 2020, Indonesia's Human Development Index (HDI) is ranked 107<sup>th</sup> out of 189 countries. Indonesia has not been able to pass into the top 100 countries in the world with an HDI figure of 71.94 (Statistics

Indonesia, 2021). A population which has low quality will be an inhibiting factor in achieving existing opportunities (Jalaluddin & Irwan Suriadi, 2019).

This population problem must be immediately sought for a solution because if it is not resolved immediately, the existence of Indonesia's large population will become a burden on the development. One way to overcome this is by controlling population growth so that the government can focus on improving and developing quality so that a prosperous society can be created in Indonesia (Wicaksono & Mahendra, 2016).

Population growth is influenced by birth (fertility) and death (mortality) rates. If the fertility rate is high and balanced with a low mortality rate, this will cause the population to increase (Wicaksono & Mahendra, 2016). One effort which really needs attention at this point is efforts to reduce fertility. This is because fertility is more complex than mortality, in which a woman only dies once, but she can give birth to more than one baby. Besides if someone dies on a certain day and time, it means that from that moment on, that person is no longer at risk of dying. On the other hand, a woman who has given birth to a child does not mean that the woman's risk of giving birth again decreases (Sukim & Salam, 2019).

There are several fertility measures which are often used, specifically Crude Birth Rate, Total Fertility Rate and Age Specific Fertility Rate. TFR and ASFR are still the most widely used numbers. This is because the CBR only calculates the ratio of the number of births to the population, both men and women, while the TFR and ASFR have taken into account the comparison, that is the female population aged 15-49 years (Arialdi Rendi, 2016). The TFR figure shows the average number of children born until the end of their reproductive period (15-49 years).

In the 2010-2014 National Medium Term Development Plan as stated in Presidential

Regulation No. 5/2010, the TFR target was set at 2.1 children. This means that it is expected that Indonesian women will be able to give birth to 2.1 children until the end of their reproductive period. However, until 2017, the TFR for Indonesian women was still at 2.4. In fact, the TFR figure had stagnated at 2.6 children for more than 10 years. The TFR figure decreased by 0.2 in 2017 according to the Indonesian Demographic and Health Survey (IDHS). This phenomenon shows that there is fertility stagnation in Indonesia (Statistics Indonesia, 2018).

If divided by province, in 2020 there were 24 provinces in which the TFR was above the national figure (BKKBN, 2021). An interesting phenomenon occurred in South Sulawesi Province. Based on the results of the comparison between the 2017 and 2020 TFR figures, South Sulawesi Province was ranked third with the highest TFR increase of 0.38 points (Statistics Indonesia, 2018). This province is also the fifth largest population in Indonesia and the first largest in the Eastern Indonesia region (Statistics Indonesia, 2021). So, if the population is large accompanied by a high TFR, then population growth in that area will increase drastically. Therefore, this research focuses its discussion on South Sulawesi Province.

The target for achieving fertility levels is also set in the Regional Long Term Development Plan which is stated in South Sulawesi Provincial Regulation No. 1/ 2019. In this regional regulation, the TFR for South Sulawesi is targeted to reach 2.1 children in 2024 (Perda Nomor 1 Tahun 2019 tentang RPJMD Provinsi South Sulawesi Tahun 2018-2023, 2019). This target is considered quite realistic because the TFR for South Sulawesi Province has been far below the national figure since 2012. However, in 2020 the TFR for South Sulawesi Province actually experienced a sharp increase to reach 2.78 children per woman (BKKBN, 2021).

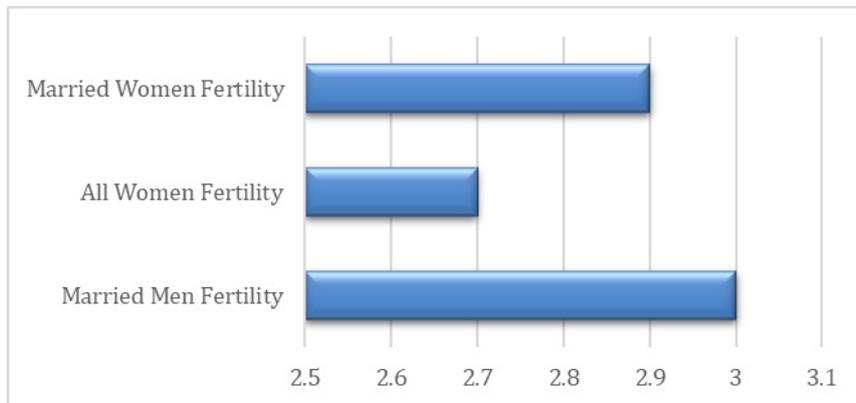


Source: BKKBN, 2021.

**Figure 1.** Total Fertility Rate (TFR) South Sulawesi, 2003-2020

Apart from that, if we look at fertility preferences, the ideal number of children according to married men, all women, and ever-married women is 2.7 and above. This shows the fact that the slogan of the National Population and Family Disaster

Agency (BKKBN) which reads “two children is enough” has not been successfully implemented comprehensively in South Sulawesi Province. This phenomenon can be seen in the following image.



Source: Statistics Indonesia, 2018.

Note: All Women, and Men from the Indonesian Demographic and Health Survey (IDHS) in South Sulawesi Province in 2017.

**Figure 2.** Average Ideal Number of Children according to Perceptions of Married Women

To overcome this, it is necessary to study the factors which influence fertility. The relationship between these factors and fertility can be approached with appropriate statistical analysis. By knowing the factors which have an influence on fertility levels, it

is expected that targeted plans and policies can be made in an effort to reduce fertility levels (Sukim & Salam, 2019).

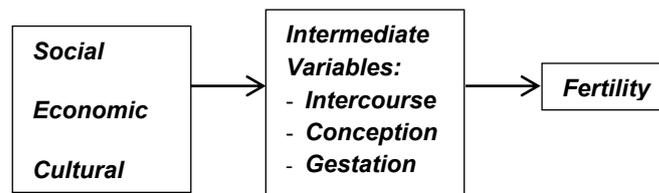
Research on factors influencing fertility in South Sulawesi Province was carried out by Haerana (2022) with a

population of adolescent women aged 15 to 24 years old using sociodemographic variables from the 2017 IDHS. Furthermore, Sopyan (2016) in his dissertation also researched the determinants fertility of women aged 15 to 65 years old in South Sulawesi Province using sociodemographic variables at the individual level. Furthermore, Nur (2023) has examined the determinants of fertility both at the individual and regional levels. However, in these three studies, they still used secondary data which was unable to capture several variables which needed to be studied further through in-depth interviews. So, this research is expected to be able perfecting these three studies. Thus, the problem formulation in this research is

what are the determinants of women's fertility according to social and cultural perspectives in South Sulawesi Province in 2021?

### Literature Review

This research begins with the fertility theory of Davis and Blake (1956) which states that the factors influencing fertility are through what are called intermediate variables. According to him, social, economic and cultural factors which influence fertility will be through intermediate variables. The fertility concept framework proposed by Davis and Blake (1956) can be seen in the figure below.

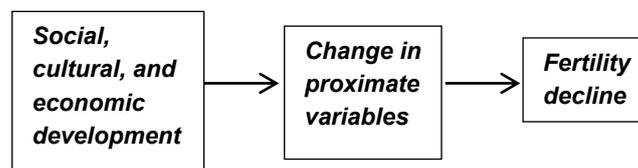


Source: Davis and Blake (1956)

**Figure 3.** Davis and Blake's Fertility Conceptual Framework

Bongaarts (1978) built another simple but comprehensive model of the relationship between variables between socioeconomic development and a decline in fertility levels.

According to Bongaarts, social, cultural and economic variables influence fertility through an approach (proximate determinant).



Source: Bongaarts (1978)

**Figure 4.** Bongaarts Fertility Conceptual Framework

Freedman (1979) in Trisnaningsih (2016) continued Davis and Blake's theory into a model which explains the relationship between socio-economic conditions, environmental factors, and applicable norms

in influencing intermediate variables which ultimately influence fertility. The analysis model provides analysis possibilities, such as listed below.

- a. Socio-economic influence on one of the intermediate variables, or
- b. The influence of one or several environmental factors on fertility, or can be
- c. The influence of several environmental and socio-economic factors on fertility.

According to Freedman (1979) in Trisnaningsih (2016), intermediate variables which directly influence fertility are basically also influenced by the norms applied in society. In the end, a person's fertility behavior is influenced by existing norms, that is norms about family size and norms about the intermediate variables themselves. Furthermore, norms regarding family size and intermediate variables are influenced by the level of mortality and the socio-economic structure which exists in society.

According to fertility research on women in South Sulawesi Province conducted by Nur (2023), social factors which influence women's fertility consist of education, women's working status, use of contraceptives, and area of residence. Then, research conducted by Wicaksono & Mahendra (2016) stated that women's fertility is also influenced by social factors, such as the partner's working status, exposure to media information on contraception, and child mortality.

The higher the level of education, the fertility will tend to decrease. This is because the time someone spends on completing their studies will cause marriage to be delayed. Thus, the number of children born will be fewer (Sinaga & Hardiani (2017). Apart from a shorter reproductive period, women who have a higher level of education are more open to new values, such as the view that having a small number of children will lead to happiness and prosperity. Apart from that, highly educated women are also more open to using modern contraceptives (Wicaksono & Mahendra, 2016).

Research conducted by Wicaksono & Mahendra (2016) states that there is

a negative relationship between working status and fertility. In addition, the higher a woman's working hours, the less likely she is to have large numbers of children (Syam, 2016). Then, the husband's working status influences women's fertility as stated by Kenneth and Steclov in research conducted by (Refrihardi & Putri, 2019).

Research conducted by (Sitorus et al., 2020) states that exposure to contraceptive information influences the number of children. This is because the more frequent media exposure will have an impact on knowledge which can influence a person's behavior and views on child ownership.

The next variable is the use of a contraceptive device/method. This variable influences a woman's fertility because it is believed to be effective in preventing pregnancy. By becoming family planning acceptors, couples of childbearing age can space out pregnancies and limit the number of children according to their wishes (Sabina, 2020). According to Ekawati (2008) in her research conducted in West Java, the influence of socio-economic factors influences fertility through variables including the use of contraception.

Davis and Blake (1956) stated that the incidence of child death can affect women's fertility. In reality, women who have experienced child mortality tend to want to have more children to replace the children who have died. Apart from that, the alleged psychological effect on parents who have experienced the death of a child resulting in them tending to want to have large numbers of children has been proven in research conducted by Wicaksono & Mahendra (2016).

Furthermore, the area of residence which is divided into rural and urban areas influences women's fertility. People who live in rural areas have the opinion that children are assets that can help the family's economy so that the presence of children is highly expected (Becker, 1954). Apart from that, people who live in rural areas

also tend to have large numbers of children with the expectation that their presence can accompany and ensure them in their old age (Manis, 2015).

## Methods

This research is a type of quantitative research with married women aged 15 to 49 years old as the main research subjects.

For quantitative data, this research uses data from the 2017 Indonesian Demographic and Health Survey (IDHS) obtained from the Central Statistics Agency of South Sulawesi Province. The data was then analyzed using a regression model for data with categorical variables on the dependent variable, that is the logistic model. If there are only two categories, it is called a binary logistic model (Madris, 2021).

**Table 1. Variables Used in Research**

Variable (1)	Category (2)	Code (3)	Variable Notation (4)
Fertility of Reproductive Age Women	2 children or less (≤2 children)	1	ln(P/(1-P))
	more than 2 children (>2 children)	0	
Education of Reproduction Age Women	(≥Senior High) Highly Educated	1	X1
	(<Senior High) Poorly Educated	0	
Job Status of Reproductive Age Women	Working	1	X2
	Unemployed	0	
Job Status of Their Husband/Partner	Working	1	X3
	Unemployed	0	
Media Exposure on Information about Family Planning Programme	Exposed	1	X4
	Unexposed	0	
The Use of Contraception	Yes	1	X5
	No	0	
Children Mortality	No	1	X6
	Yes	0	
Rural Urban Status of Living Location	Rural	1	X7
	Urban	0	

The logistic regression model in this study is as presented below.

$$\ln\left(\frac{P}{1-P}\right) = \beta_0 + \beta_1X1 + \beta_2X2 + \beta_3X3 + \beta_4X4 + \beta_5X5 + \beta_6X6 + \beta_7X7 + e$$

Next, in-depth interviews were conducted with three resource persons (informants), consisting of women aged 15 to 49 years old with certain characteristics who live in South Sulawesi Province. This is done so that more in-depth information can be obtained, especially regarding cultural aspects. The individuals used as informants were selected purposively according to the researcher's considerations. These considerations are based on people who have criteria according to the main research subject and people who are considered to best understand what is being studied in this research, so that the data obtained can be recognized as correct. The informants in the qualitative research were three women aged 15 to 49 years old

who were willing to become informants and could be invited to communicate with both the community, government elements and social institutions who mastered the research topic.

## Results and Discussion

From the results of the 2017 IDHS, it was found that the number of married women aged 15 to 49 years was 3,108, of which those with less than or equal to two children were 1,156 women and 1,952 women had more than two children. The distribution of data from ever-married women of childbearing age is as follows.

**Table 2. Tabulation of Dependent Variables and Research Independent Variables**

Variable	Category	Fertility of Reproductive Age		
		≤ 2 Children	> 2 Children	Total
(1)	(2)	(3)	(4)	(5)
Education of Reproduce Age Women	(≥Senior High) Highly Educated	848	398	1246
	(<Senior High) Poorly Educated	1104	758	1862
Job Status of Reproductive Age Women	Working	1315	761	2076
	Unemployed	637	395	1032
Job Status of Their Husband/Partner	Working	1815	1035	2850
	Unemployed	137	121	258
Media Exposure on Information about Family Planning Programme	Exposed	376	163	539
	Unexposed	1576	993	2569
The Use of Contraception	Yes	1805	1016	2821
	No	147	140	287
Children Mortality	Yes	400	201	601
	No	1552	955	2507
Rural Urban Status of Living Location	Rural	1077	666	1743
	Urban	875	490	1365

Based on Table 2, it is known that women aged 15 to 49 years old who have less than or equal to two children have a high percentage of women from working status (42.31 percent). This is because women spend more time at work, resulting in household matters and children receiving less attention. Thus, working women choose to have fewer children (Wicaksono & Mahendra, 2016).

Apart from that, women who have working partners also have a high percentage (58.40 percent). This is in line with research conducted by Kenneth and Stecklov in Refrihardi & Putri (2019) which states that working husbands can change women's views to focus on the quality of their children and set aside the income they earn to prepare

for a better life for their children in the future.

On the other hand, women who live in urban areas also have a high percentage of having less than two children (34.65 percent). De la Croix & Gobbi (2017) in their research stated that there is a tendency in which families who migrate to densely populated areas decide to have fewer children. On the other hand, a family decides to move to an area with a fairly lower density level and wants to have more children because the costs required to care for and raise children tend to be low too.

In the initial stage of the binary logistic regression analysis, the Hosmer and Lemeshow Tests were carried out to see the suitability of the model.

Initial hypothesis : There is no difference between the model and the observed values (model fit)

Alternative Hypothesis : There is a difference between the model and the observed values (the model is not fit)

Using  $\alpha = 0.05$

**Table 3. Hosmer and Lemeshow Test Results**

Step	Chi-square	df	Sig.
1	14.318	8	.074

Decision : Reject  $H_0$  because  $\chi_{count} (14.318) > \chi_{Table} (15.51)$  and significance value  $> 0.05$

Conclusion : With a confidence level of 95 percent, it can be concluded that there is no difference between the model and the observed values so it can be said to be a fit model.

After the model is categorized as, it continues with testing the variables together using the Omnibus Test. Simultaneous parameter testing is carried out to determine the factors represented by the independent variables used in the model and the dependent variables simultaneously as follows.

Initial hypothesis :  $H_0: \beta_1 = \beta_2 = \dots = \beta_7 = 0$  There are no independent variables which has effect on the dependent variable.

Alternative Hypothesis :  $H_1: \text{at least one } \beta_i \neq 0$  There is at least one independent variable that has a significant effect on the dependent variable.

Where  $i = 1, 2, \dots, 7$

Using  $\alpha = 0.05$

**Table 4. Omnibus Test Results**

Omnibus Tests of Model Coefficients				
		Chi-square	df	Sig.
Step 1	Step	76.721	7	.000
	Block	76.721	7	.000
	Model	76.721	7	.000

Decision : Reject Ho because  $\chi_{count} (76.721) > \chi_{Table} (14.07)$  and significance value  $< 0.05$

Conclusion : With a confidence level of 95 percent, it can be concluded that there is at least one independent variable that influences the independent variable. Or in other words, there is at least one independent variable that is able to explain the dependent variable.

After the simultaneous test results stated that there was at least one independent variable which had a significant effect or was able to explain the fertility of married women aged 15-499 years.

independent variables have a significant influence on the fertility of married women aged 15-49 years. Partial testing is carried out with the Wald test. The results are as follows.

The next stage is carried out partially. The partial test is used to determine which

**Table 5. Wald Test Result**

Variabel in the Equation		95% C.I.for Exp(B)							
		B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Step 1 <sup>a</sup>	X1	.306	.057	29.35	1	.000	1.358	1.216	1.52
	X2	-.173	.081	4.517	1	.034	.841	.717	.987
	X3	-.364	.138	6.948	1	.008	.695	.530	.911
	X4	.245	.108	5.120	1	.024	1.277	1.033	1.58
	X5	-.224	.060	13.92	1	.000	.799	.710	.899
	X6	.164	.098	2.780	1	.095	1.178	.972	1.43
	X7	-.236	.790	8.979	1	.003	.790	.677	.922
	Constant	-.211	.209	1.019	1	.313	.810		

Based on the estimated coefficient values of the model parameters, the logistic regression model produced in this study is:

$$\ln\left(\frac{P}{1-P}\right) = -0,211 + 0,306X1 - 0,173X2 - 0,364X3 + 0,245X4 - 0,224X5 + 0,164X6^* - 0,236X7 + e$$

Notes: \* Non-significant Variable

The model above shows the relationship between the characteristics of the independent variables in the logit function of the chances of a woman having less than or equal to 2 children. In this model, variables with positive coefficients mean the risk of married women aged 15-49 years having less than or equal to two children. with this category will be greater than the reference category. The complete inference results are interpreted through  $\exp(B)$  or referred to as the odds ratio. The results of the interpretation of each variable are as follows.

The variable education of women aged 15 to 49 years has a significant influence on fertility. Based on the odds ratio value, highly educated women have a 1.358 times greater chance than low educated women of having less than or equal to two children. People who have a higher level of education tend to have fewer children than people who have a lower education. This is because people who have a high level of education will more easily accept new things, such as the norm of small, happy, prosperous families, the need to use contraceptives, and the new view that children are not a factor of family production, but rather as an investment for parents in their future later (Wicaksono & Mahendra, 2016).

This is supported by an explanation of the results of in-depth interviews as answers to fertility phenomena that cannot be covered by secondary data. The results of the interview with informant TN, who is a woman with a high level of education (S1), with the following statement.

“I can apply the parenting knowledge that I have gained both from social media and seminars so that I can improve my offspring. I hope that in the future my children can have a better life than me?”

A woman with a high level of education always wants to have children who are of good quality in terms of education, character

and independence. By successfully raising quality children, their parenting satisfaction will increase (Yusuf & Sim, 2016). Highly educated parents raise their children with full emotional support in accordance with parenting sciences which have developed in society so that they can produce children who have high self-confidence, are competent, and have high academic achievement motivation (Moon-seo, et.al., 2021). Highly educated parents do not only focus on numbers, but use all the resources they have to develop strategies so that they are able to raise children who are able to face all challenges and can be successful in the future.

Apart from that, there is a cultural phenomenon which occurs in South Sulawesi in which highly educated women generally marry more quickly due to the obligation to give *panaik* money from men as wedding expenses. The Bugis tribe, South Sulawesi, is predominantly Muslim so to before carrying out a marriage, there are traditional customs, that is *panaik* money. *Panaik* is money given by the prospective groom to the bride which according to local custom is a respect and money needs, traditions and customs in society. For the Bugis tribe, this is mandatory or as a pre-requisite for marriage, if the required *panaik* money is not implemented, then the marriage cannot be carried out (Putri, et.al., 2021). The higher a woman's social status, such as education level, work status, beauty, family economy, and lineage, the more expensive her *panaik* money is (Ikbal, et.al., 2016).

Pronk, et.al., (2019) in their research found that the older a person is at marriage due to attending school first, the more stable their emotional control is and their ability to forgive and accept other people's conditions is higher. This results in people of a more mature age tending to be better prepared to become parents. In addition, starting a family at an older age causes a woman to think more about the various decisions she

makes, including the ideal number of children and the best strategy for raising them. For example, informant TN, who married at the age of 30, gave the following statement.

“I got married when I was 30 years old. Even though I already have a steady income with my husband, I really want to have two children. Because my two children are boys, sometimes I want to have more children and have a girl. However, after thinking about it again, it would be better to just have two children. I’m old, I won’t be strong enough to get pregnant and give birth again. I want to focus on getting my children into the best schools plus various tutoring outside of school hours. Apart from that, I can save while I’m saving to prepare the *panaik* money later.”

This shows that women who marry at a more mature age have more forward thought about their children’s future. By controlling the number and distance of children, parents can provide the best facilities which can lead to improvements in the quality of children. According to Desai (1995), when a family has a small number of children, they are able to provide more facilities to each child such as the level of education.

Women’s work status has a significant influence on fertility. Based on the odds ratio value, working women have a 0.841 times smaller chance than non-working women of having less than or equal to two children. In other words, non-working women have a 1.189 times greater chance than working women of having less than two children.

In research conducted by Laatz & Sanz (2006) in member countries of the Organization for Economic Co-operation and Development (OECD), it was found that working women in developed countries, such as Italy, Spain and Japan, had children in greater numbers. This is because workplace regulations increasingly support women in

being able to combine career development and taking care of children. These regulations can take the form of more flexible working hours, the development of child care facilities close to the office location, as well as longer maternity and maternity leave rights.

In Indonesia, the Draft Law on the Welfare of Mothers and Children (RUU KIA) contains article 4 which stipulates that mothers are entitled to maternity leave for 6 months. In fact, in the previous law, that is Law No. 13/2003 concerning employment, maternity leave was granted for a maximum of three months (Republic Indonesia, 2003). Apart from that, in the MCH Bill, women also have the right to receive health insurance during pregnancy, guaranteed health services, as well as the right to receive special treatment in public facilities and infrastructure.

The husband’s work status variable of married women aged 15-49 years has a significant influence on fertility. Based on the odds ratio value, women who have working husbands have a 0.695 times smaller chance than women who have non-working husbands to have less than or equal to two children. In other words, women whose husbands do not work have a 1.438 times greater chance than women whose husbands work to have less than two children.

This is because when the husband does not work, the economic condition of the household tends to be unstable. This is because income is the main element in a woman’s fertility process, in which birth cannot take place without adequate financial support (Larasati & Anis, 2018). So, when the husband does not work, the woman will try to control her fertility due to concerns about the future of the child.

On the other hand, in high-income communities, having children costs a lot of money and is considered a burden. So the higher a family’s income, the lower its fertility (Syam, 2016). This is in line with informant SN’s statement as follows.

“Even though my husband and I both work and thank God we have sufficient income, I feel that I don’t want to have any more children, two are enough. I prefer to manage my finances well and focus on providing nutritious food for my children. Apart from that, my husband and I also save money to send them to good schools and add various tutoring to find their interests and talents. I hope that in the future my children can study abroad.”

The media exposure variable about contraceptives has a significant influence on fertility. Based on the odds ratio value, women who are exposed to media about contraceptives have a 1.277 times greater chance than women who are not exposed to media about contraceptives to have less than or equal to two children. This is in line with research conducted by Sitorus, et.al. (2020) stating that exposure to contraceptive information affects the number of children. This is because the more frequent media exposure will have an impact on knowledge which can influence a person’s behavior and views on child ownership.

Furthermore, the variable use of contraceptives in married women aged 15 to 49 years old has a significant influence on fertility. Based on the odds ratio value, women who use contraception have a 0.799 times smaller chance than women who do not use contraception to have less than or equal to two children. In other words, women who do not use contraception have a 1.252 times greater chance than women who use contraception to have less than two children.

This is in line with research conducted by Saragih (2005) and Iswarati (2009) which states that women who use a contraceptive method/device have greater fertility compared to women who do not use contraceptives. This is because women use contraception after having more than one child. Wicaksono & Mahendra (2016)

also found the same phenomenon in which women tend to use contraception after having the desired number of children. If a woman uses a contraceptive method after having the desired number of children, then the opportunity to have only two children until the end of her reproductive period will be difficult to achieve (Trisnaningsih, 2016).

Apart from that, Saragih (2005) in his research found that women used a method of contraception intermittently. Statistics Indonesia noted that based on the results of the March 2021 Susenas, of all women who were currently using a contraceptive method, 24.14 percent of women had ever stopped (Statistics Indonesia South Sulawesi, 2021). This is because certain contraceptive methods require consistency and discipline in their use, for example contraceptive pills or injections.

Furthermore, the problem of using a contraceptive method also lies in its effectiveness based on the incidence of pregnancy in 100 women per year. According to Hartanto (1991), the highest effectiveness of traditional contraceptive methods is only 90 percent. Even with the calendar method, its effectiveness reaches 15 to 47 pregnancy incidents in 100 women per year. Then, the effectiveness of modern contraceptives, such as injections, implants and spirals, only reaches 97 percent. This causes women who use a contraceptive method to feel safe having sexual relations so that their chances of getting pregnant without planning are greater. This is in line with informant KH as follows.

“Actually, when I was pregnant, I used birth control. But yeah, it turns out it was conceded. I didn’t think I was pregnant, I thought I was late for my period because I was tired and stressed from office work. It turns out, thank God, I got pregnant. Moreover, this birth gave me the blessing of a son, so it feels complete.”

Apart from that, there is a phenomenon of increasing use of contraceptive methods in women aged 35 years and over. In fact, contraceptive methods can be effective if used in couples aged 15 to 30 years, in which in this age range, a woman's reproductive period is longer, so her chances of having many children are greater (Sumini & Tsalasa, 2015). The contraceptive program is expected to focus on targeting low parity young couples, specifically couples who have only had one child and are not yet 30 years old. This is because if the use of a contraceptive method is carried out after having more than two children, then efforts to reduce the TFR figure will be difficult to achieve (Trisnaningsih, 2016).

The variable child mortality in married women aged 15 to 49 years does not have a significant effect on fertility. Based on the odds ratio value, women who have never experienced mortality have a 1.178 times greater chance than women who have experienced child mortality to have less than or equal to two children. This is because the alleged psychological effect on parents who are afraid of losing their child if they have previously experienced a child death was not proven in this study.

The variable in which married women aged 15 - 49 years old live has a significant influence on fertility. Based on the odds ratio value, women who live in urban areas have a 0.790 times smaller chance than women who live in rural areas of having less than or equal to two children. In other words, women who live in rural areas have a 1.266 times greater chance than women who live in urban areas of having less than two children.

According to research Zarate, A., (1967) and it was conducted in Mexico, there is a phenomenon of high fertility in women in urban areas compared to rural areas in Mexico. This is because urbanization and industrialization have resulted in the rapid development of health facilities and public infrastructure which can make it easier for

women to have more children. The results of an in-depth interview with the informant with the initials YU who is a woman who lives in an urban area are as follows.

“Actually, I don't want to have any more children because of my old age. But looking at increasingly advanced developments, facilities can be obtained easily. In the past, I couldn't go for a pregnancy check if my husband was out of town. Now I can go with my children because there are online motorbike taxis. Apart from that, the doctor who treated me previously has now opened his own hospital so that I can immediately come to have a pregnancy check there with more sophisticated equipment. Here in Makassar, there are also lots of childcare centers and institutions that provide nannies, so maybe finding a babysitter is not as difficult as it used to be, considering that my mother is old and can no longer look after the baby.”

The development of maternal and child hospitals and pediatrician clinics, childcare facilities and schools starting from the age of 3 years around office areas, transportation technology such as online motorcycle taxis, and childcare providers have meant that women in urban areas tend to have easier access to support. system to make their daily lives easier even if they decide to have more children.

## **Conclusions**

Based on the results of research conducted by the author, social factors which influence the fertility of women aged 15 to 49 years in South Sulawesi Province consist of education, working status of women and partners, media exposure to contraception, use of contraceptives, and area of residence. Then, cultural factors which influence women's

fertility include a culture of money panic and the desire of parents for their children to have a better life. Steps which can be taken to reduce fertility include efforts to equalize education and employment opportunities for women and men, intensify media outreach regarding modern contraceptive programs, and focus contraceptive programs targeting young parity couples. Apart from that, development needs to focus on eliminating disparities between rural and urban areas both in terms of education and health infrastructure.

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## Modeling the Human Development Index Seen from the Aspect of Public Health in East Java

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### Abstract

The country should invest in health development to raise the standard of its human resources. The human development index (HDI) of a state can be impacted by health development as determined by the public health development index. Finding a prediction model for HDI in terms of public health development indicators was the aim of this study. The method used here is that for each district and city in East Java Province in 2018, secondary data on HDI and public health development indicators were collected. The Statistics Indonesia and the Health Research and Development Agency provided secondary data. Multiple linear regression analysis was performed on the data using the SPSS 26 program. Results show that the variables of toddler health, reproductive health, health services, health behavior, non-communicable diseases, and environmental health are significantly related to HDI, while the prediction for HDI based on linear regression model of this study is  $HDI = 44.831 + 20.347^* \text{ indicators of health service indicators} + 42.511^* \text{ indicators of health behavior} - 12.208^* \text{ indicators of non-communicable diseases}$ . Based on this model, it is necessary to pay more attention to health services, health behavior, and trends in non-communicable diseases in the community in order to increase the HDI rate in East Java Province.

**Keywords:** HDI; public health development indicators; linear regression model

### Introduction

Health as the foundation of human life is able to describe the condition of a person or community seen from the perspective of physical, mental, and social well-being and avoiding illness or disability (Permono, et.al., 2020; World Health Organization (WHO), 2023). Health is an important factor to support the smooth activities of everyone so that health becomes the main capital in the national development of a nation (Anggraini, et.al., 2017; Basuki, 2020). Thus, health and society cannot be separated to review the success of the country's development.

The Center for Disease Control (CDC) states that public health has the aim of protecting and improving the health of people and their communities through the promotion of healthy lifestyles, the prevention of disease and injury, and detecting, preventing, and responding to infectious diseases in populations, countries, or regions around the world (CDC, 2023). To measure the health status in the community, the Indonesian Government determines the level of public health as the capital for implementing national development through the development and guidance of higher-quality human resources (Basuki, 2020).

The quality of human resources in a country can show the extent of a country's level of development because development serves as a tool to achieve the nation's national goals (Larasati, 2018; Fitriyah, et.al., 2021). The United Nations Development Program (UNDP) describes that the dimensions of development consist of two aspects. First, the improvement of human capabilities includes increasing the time to live longer and healthier, increasing knowledge, and increasing decent living standards. Second, the creation of conditions that enable human development (Sugiyono, 2020; UNDP, 2022).

The implementation of human development includes three dimensions, specifically health, education, and income, which are then developed into (1) living a long and healthy life, (2) gaining access to education, and (3) having access to sources of fulfillment of life's needs (Damayanti, 2018; Sugiyono, 2020). Development is carried out and to be considered success if all levels of society are involved according to their respective potential and abilities (Muttapien, et.al., 2019). Through the success of this development, the level of welfare of the Indonesian people can be known. One way to measure the level of development in a country or region is to use the Human Development Index (HDI) (Damayanti, 2018; Fitriyah, et.al., 2021; Larasati, 2018).

HDI is a benchmark for reviewing the extent of successful development of the quality of human life (Fitriyah, et.al., 2021). In addition, HDI is also used to classify countries in the world into developed, developing, and underdeveloped countries (Rahmat, et.al., 2020). Based on the HDI data of countries in the world issued by the United Nations (UN) in 2018, Indonesia's level of human development is at the intermediate human development country level (Damayanti, 2018). In addition, the article written by Larasati (2018) states that Indonesia's HDI level in 2015 was at the Medium Human Development level. Even though Indonesia

occupies an intermediate level, the country experiences an increase in HDI every year (Fitriyah, et.al., 2021). According to Statistics Indonesia, there was consecutive national HDI growth in the 2015–2018 period of 0.93%, 0.91%, 0.90%, and 0.82% (Ningrum, et.al., 2020).

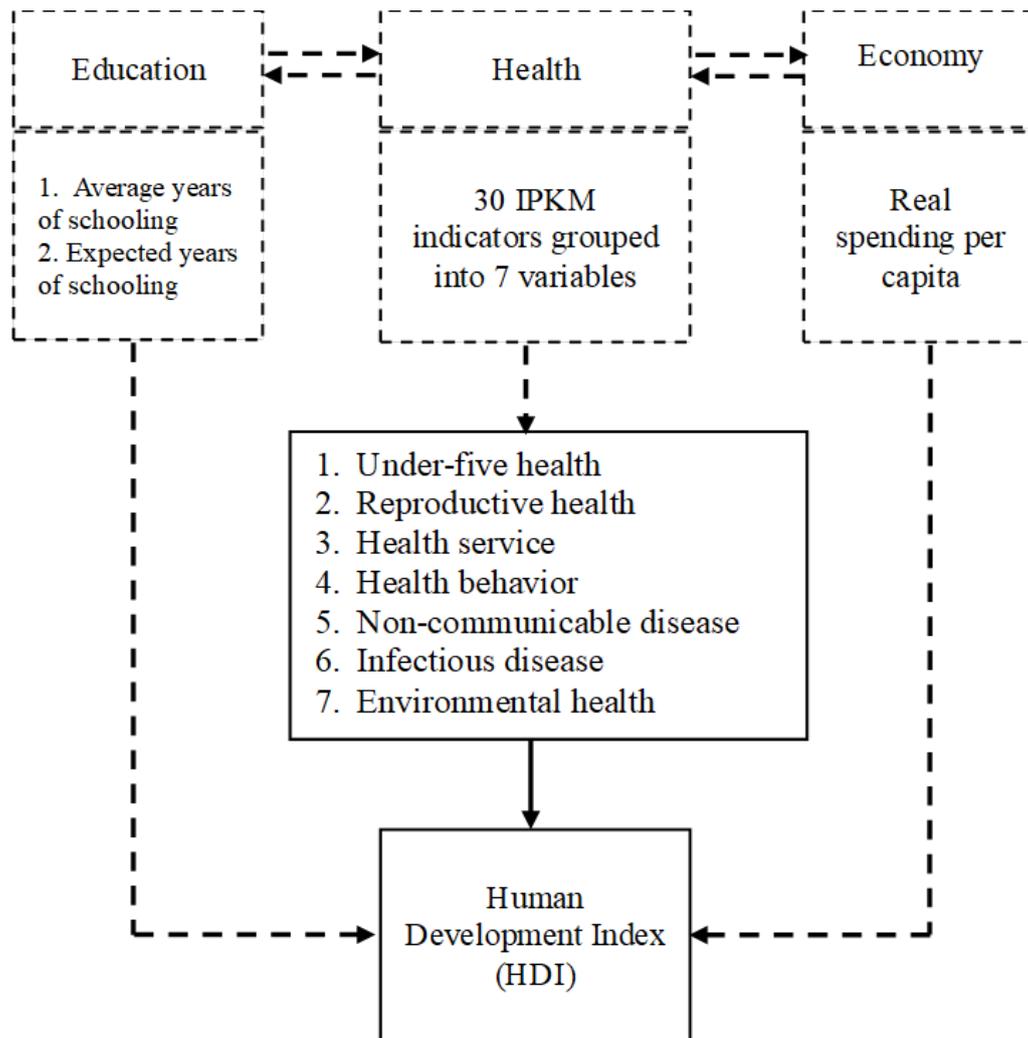
The increase in HDI is influenced by the health dimension. This is because the level of public health is one of the benchmarks for assessing the level of community welfare in a region (Damayanti, 2018). The Public Health Development Indicator (in Indonesian is known as IPKM) is one of the indicators used to assess HDI from the health aspect and to determine the success of development in the field of public health (Fitriyah, et.al., 2021). Rachmat (2019) defines health development as a development which focuses on improving public health status, community nutritional status, promotional and preventive efforts, and the national immunization program. In addition, national health development is related to the third point of the Sustainable Development Goals (SDGs), which aims to ensure good health and well-being for all people at all ages (Sarker, 2021).

Efforts to increase HDI are supported by government spending in the health sector, which aims to improve the level or quality of health in a sustainable and continuous manner in the long term so as to affect the productivity of human resources to be higher (Yanti, et.al., 2020). Therefore, as a key indicator which describes the level of public health development at the district or city level, the Health Research and Development Agency of the Indonesian Ministry of Health compiled IPKM. IPKM is a collection of health indicators which can be easily measured to describe health problems including under-five health, reproductive health, health services, health behavior, non-communicable diseases, infectious diseases, and environmental health (Kemenkes RI, 2020).

Based on the above background, it can be seen that HDI cannot be separated from

health sector development. Therefore, it is very important to examine the influence of indicators in the HDI which can have an impact on the level of HDI in East Java Province, know the HDI indicators which have the most influence on HDI, and predict the magnitude of the influence of each HDI indicator on HDI. This study uses 2018

data because it is in accordance with the availability of the latest GPA data, that is from 2018. This research is expected to provide an overview of health sector development and its interventions for the Health Office and the East Java Provincial Government in carrying out public health development programs.



Information:  
 : The variable being analyzed  
 : The variable not analyzed

Source: R. Hapsara Habib Rachmat, 2018 in his book '*Perkembangan Pembangunan Kesehatan: Analisis dan Proyeksi tahun 2000-2045*'

**Picture 1.** Outline of Research Theory

## Methods

The Health Research and Development Agency and Statistics Indonesia provided secondary data for this quantitative analysis. There were 38 regencies and cities in the East Java Province to be observed in 2018. HDI data as the dependent variable (Y), toddler health indicators (X1), reproductive health indicators (X2), health service indicators (X3), health behavior indicators (X4), non-communicable disease indicators (X5), infectious disease indicators (X6), and environmental health indicators (X7) are the data required for this study.

SPSS 26 was used for data analysis. Data analysis took the form of multiple linear regression analysis, with the goal of estimating how much the HDI in East Java Province will be influenced by public health development indicators. The multiple linear regression model is as follows.

$$\hat{Y} = \hat{\beta}_0 + \hat{\beta}_1 X_1 + \dots + \hat{\beta}_k X_k,$$

Information (Ningrum, et.al., 2020):

$\hat{Y}$  = Human Development Index (IPM)

$\hat{\beta}_0$  = Constant

X1 = toddler health indicator

Xk = independent variable

The collected data is next examined for normality to determine whether the data are normal. Many regression models are constructed using normal data. Also, if the regression model satisfies the requirements for having the greatest Adj R-square value, the lowest SE, the lowest PRESS statistical value, the lowest AIC and SBC, and a CP Mallows value parameter, it is good and may be employed. Several levels of assumption testing, such as the linearity test, residual normality test, homoscedasticity test, multicollinearity test, autocorrelation test, partial test, and simultaneous test, are used when modeling in multiple linear regression analysis. If the multiple linear regression model passes each of the above assumption tests, it may also be used to predict the dependent variable.

## Results

Based on the results of the data normality test, it is known that the HDI variable (Y), reproductive health indicators (X2), health service indicators (X3), health behavior indicators (X4), non-communicable disease indicators (X5), and infectious disease indicators (X6) have a normal data distribution. Meanwhile, the toddler health indicator (X1) and the environmental health indicator (X7) have abnormal data distributions. Bivariate analysis is presented in Table 1.

**Table 1. Pearson Correlation Analysis**

Symbols	Variable	p-value	Coefficient of Correlation
X1*	the toddler health indicator	0.000	0.625
X2	reproductive health indicators	0.000	0.665
X3	health service indicators	0.000	0.741
X4	health behaviour indicators	0.000	0.669
X5	non-communicable disease indicators	0.000	-0.687
X6	infectious disease indicators	0.269	-0.184
X7*	the environmental health indicator	0.000	0.856

\*Rank Spearman Correlation  
( $\alpha = .050$  dan CI = 95%)

Based on Table 1, the p-value of the independent variable is  $<0.050$  for variables X1, X2, X3, X4, X5, and X7; while variable X6 has a p-value of  $0.269 > 0.050$ . This means that variables X1, X2, X3, X4, X5, and X7 are significantly related to Y, but variable X6 is not significantly related to Y. The magnitude of the relationship which occurs between variables X1 and Y is 0.625, included in the strong category with a positive relationship direction. The magnitude of the relationship which occurs between variables X2 and Y is 0.665, which is in the strong category with a positive relationship direction. Furthermore, the magnitude of the relationship which occurs between variables X3 and Y is 0.741, and to be included in the strong category with a positive relationship direction. The magnitude of the relationship which occurs between variables X4 and Y is 0.669, described as the strong category with a positive relationship

direction. The magnitude of the relationship which occurs between variables X5 and Y is -0.687, that is in the strong category with a negative relationship direction. The magnitude of the relationship which occurs between variables X6 and Y, that is -0.184, it is included in the very weak category with a negative relationship direction. The magnitude of the relationship which occurs between variables X7 and Y is 0.856, and considered as a very strong category with a positive relationship direction.

X1 and X7 not used in multivariate analysis because the data was abnormal. Data abnormalities are caused by problematic data. Therefore, the independent variables which can be used to form a fit model with the dependent variable are X2, X3, X4, X5, and X6. Based on the results of the fit model using SPSS 26, 5 regression models were obtained, which are presented in Table 2.

**Table 2. Model Fit**

No	Model	Adj R2	SE	AIC	CP Mallows	SBC	PRESS
1	Cons, X2, X3, X4, X5, X6	0.730	2.70471	81.089	<b>6.000</b>	90.915	335.12
2	Cons, X3, X4, X5, X6	<b>0.735</b>	<b>2.68310</b>	79.649	<b>5.000</b>	87.837	321.98
3	Cons, X3, X4, X5	0.730	2.70433	<b>79.382</b>	<b>4.000</b>	85.933	<b>308.44</b>

By gradually reducing the variables with the highest significance value and more than 0.050 until all variables had a significance value below 0.050, the fit model was created from the linear regression analysis of the entry method.

Based on Table 2, the fit model obtained 4 regression models. Models 2 and 3 meet the same number of 3 criteria, specifically 3 criteria. So, to determine a better model, look at the respective AIC and SBC values. Model 3 is better than model 2 because the AIC and SBC values of model 3 are lower than

the AIC and SBC models 2. So, model 3 is used as a good regression model. However, to determine whether model 3 is good and feasible to use, it must meet the following regression assumptions.

1. **Linearity Assumptions**  
Straight line relationship between the independent variables and the dependent variable is checked using the linearity assumption test. Table 3 displays the outcomes of the linearity test.

**Table 3. Linearity Assumptions**

<b>Variables dependent (Y)</b>	<b>Independent Variables (X)</b>	<b>R-Square</b>	<b>Test Decision</b>
HDI	Health service indicators	0.549	linear
HDI	Health behavior indicators	0.448	linear
HDI	Non-communicable disease indicator	0.472	linear

2. **Normality residual assumption**  
The normality residual assumption test is used to examine the distribution of data derived from residuals produced by independent variables and the dependent variable. According to the residual normality test, the p-value was  $0.089 > 0.050 =$ . This indicates that the residuals are typically distributed as a result.

3. **Heteroscedasticity test**  
The heteroscedasticity assumption test is used to determine if the regression model exhibits heteroscedasticity symptoms. If there are no signs of heteroscedasticity ( $p\text{-value} > 0.050$ ), the regression model is sound. Table 4 displays the outcomes of the heteroscedasticity test.

**Table 4. Heteroscedasticity Assumption with Glejser Test**

<b>Independent Variables (X)</b>	<b>P-values</b>	<b>Test Decision</b>
Indicators of health services (X3)	0.811	No heteroscedasticity
Indicators of health behavior (X4)	0.825	No heteroscedasticity
Indicators of non-communicable diseases (X5)	0.378	No heteroscedasticity

4. **Multicollinearity test**  
 The multicollinearity assumption test is used to determine if the independent variables in the regression model are intercorrelated or collinear. If there are no indications of multicollinearity (Tol>0.10 and VIF1.000), the regression model is satisfactory. The Tol and VIF values shown in Table 5 are used as the foundation for the heteroscedasticity test findings.

**Table 5. Multicollinearity Assumptions**

<b>Independent Variables (X)</b>	<b>tolerance</b>	<b>VIF</b>	<b>Test Decision</b>
Indicators of health services (X3)	0.471	2.122	Nomulticollinearity
Indicators of health behavior (X4)	0.837	1.195	Nomulticollinearity
Indicators of non-communicable diseases (X5)	0.468	2.136	No multicollinearity

5. **Autocorrelation test**  
 The autocorrelation test tries to assess if in linear regression there is a link between residual errors in period t and errors in period t-1 (previous). If there are no indications of autocorrelation, the regression model is considered to be successful. The Durbin-Watson value of 2.078 was calculated using the SPSS 26 autocorrelation test results. This number falls between the dU value (1.6563) and the 4-dU value (2.3437). Therefore, the regression model is good and feasible to use.
6. **Partial test (tT test)**  
 Partially or separately, the p-value of each independent variable is presented in Table 6. The independent variable affects the dependent variable if the p-value <  $\alpha$ .

**Table 6. T Test**

<b>Independent Variables (X)</b>	<b>P-values</b>
Indicators of health services (X3)	0.002
Indicators of health behavior (X4)	0.000
Indicators of non-communicable diseases (X5)	0.088

Variables X3 and X4 have an effect on variable Y, while variable X5 has no effect on Y.

7. **Simultaneous test (Test F)**  
 Simultaneously or concurrently, the p-value test  $F = 0.000 < 0.050$  was obtained. This means that if X3, X4 and X5 are analyzed jointly, all of these independent variables are able to influence the dependent variable.
8. **Coefficient of Determination (R-Square)**  
 Variables X3, X4 and X5 contribute to Y by 75.20% and the rest are influenced by other variables.  
 Based on the results of multiple linear regression analysis, the regression model is obtained which meets the requirements and is feasible to use. The following are the

findings of the regression model used in this study.

$$\hat{Y} = \hat{\beta}_0 + \hat{\beta}_3 X_3 + \hat{\beta}_4 X_4 + \hat{\beta}_5 X_5$$

HDI = 44.831 + 20.347\*Indicators of health service indicators + 42,511\* Indicators of health behavior -12,208\* Indicators of non-communicable diseases

According to the regression model, the HDI variable will increase by 20.347 each time a variable unit of indicators of health services is added, by 42.511 each time a variable unit of indicators of health behavior is added, and by 12.2 each time a variable unit of indicators of non-communicable diseases is added, assuming that other variables remain constant.

The results of the research data analysis show that the HDI value in every regency or city in East Java Province can be predicted from indicators of health services, indicators of health behavior, and indicators of non-communicable diseases. This is in line with Fathurahman's research (2019), which shows that the public health development index and HDI have a significant influence. Research by Nugroho (2016), which claims that markers of healthy lifestyle behavior deserve attention since they can have an influence on infectious and non-communicable illnesses, also supports this claim. The study's healthy habits also included not smoking, cleaning one's hands, and taking care of one's mouth and teeth (Nugroho, 2016). According to Dharmayanti's research findings from 2018, lifestyle behaviors are a sub-indicator which has the potential to affect the public health development index. In addition, public health development indicators can raise people's life expectancies and the caliber of human resources in order to enhance HDI-measured human development (Fathurahman, 2019). In addition, the value of the public health development index can be used as a basis for planning health development programs

and the allocation of regional health budgets (Dharmayanti, 2018).

## **Discussion**

### *Infants and Toddlers Health Indicator Relationship to HDI*

Based on the results of the bivariate analysis, it is known that under-five health indicators are significantly related to HDI in East Java Province. Research by Sugiantari and Budiantara (2013) stated that the variable infant mortality rate, the percentage of infants aged 0–11 months who were breastfed for 4-6 months, and the percentage of toddlers aged 1-4 years who were fully immunized had an effect on life expectancy in East Java. The frequency of breastfeeding is less (<8 per day) in infants, with a risk of 4.073 times experiencing the incidence of malnutrition compared to infants who receive breast milk more than 8 times a day (Subandari, 2015). In addition, research by Ramadhani, et.al. (2020) shows that the proportion of malnourished and underweight children under five has a negative influence on life expectancy. So, if there is a decrease in the proportion of malnourished and underweight children, the life expectancy will experience an increase in value. Research by Febiola, et.al. (2022) states that the incidence of stunting in toddlers has an influence on life expectancy in West Bangka Regency.

### *Reproductive Health Indicator Relationship to HDI*

Based on the results of the bivariate analysis, it is known that reproductive health indicators are significantly related to HDI in East Java Province. Research by Husen, et.al. (2021) showed a direct influence of the availability of contraceptives and contraceptive drugs on life expectancy in North Maluku Province, with a contribution to improving life expectancy of

96.4%. Research by Bukit (2019) states that pregnant women who carry out complete examinations can reduce maternal mortality in third-trimester high-risk pregnancies. This is supported by research by Annisaa, et.al. (2022), which states that health checks for pregnant women at least four times during pregnancy can predict HDI in Karanganyar by 99.3%. Pregnancy check-ups can be a facility for pregnant women to monitor their nutritional status. Pregnant women who suffer from nutritional deficiencies, such as chronic energy deficiency, anemia, and disorders due to iodine deficiency, are at risk of giving birth to low-weight babies and have an impact on the development and productivity of children later in life. This will have an impact on the quality of human resources in the future, which can affect the HDI (Villasari, et.al., 2021). HDI in the health sector must continue to be improved through various policies and service strategies, one of which is the Family Planning Program (Husen, 2021).

#### *Health Service Indicator Relationship to HDI*

Based on the results of the bivariate analysis, it is known that health service indicators are significantly related to HDI in East Java Province. Ismail's research (2021) shows that government spending on health services has a significant effect on HDI in Manado City. In line with this research, Sugiyono (2020) states that excellent health services at low costs can encourage improvements in the quality of public health and have an impact on increasing the HDI component of the health sector.

Indrawati (2018) states that improving the quality of health services is able to intervene in reproductive health problems so as to improve the quality of human development. This is in line with the results found, that is an increase in the coverage of childbirth by health workers in health facilities, the proportion of the adequacy of the number of

doctors, the proportion of the adequacy of the number of Integrated Healthcare Centers (*Posyandu*), and the proportion of ownership of health care insurance can increase the value of the reproductive health sub-index consisting of indicators of the use of long-term contraceptive methods, pregnancy checks, and chronic energy deficiency problems in women of childbearing age (Indrawati, 2018). The ratio of health workers also has a relation with one of the dimensions of HDI, to be specifically life expectancy. Research by Ramadhani, et.al. (2020) shows that the proportion of villages with an adequate number of midwives per 1,000 population affects life expectancy. In addition, the number of doctors has a direct influence on life expectancy (Felangi & Yasa, 2020).

Winoto (2018) showed that health services are able to influence public health improvement, as seen from access and the quality of clinical care. The quality of health services is oriented towards aspects of patient safety, action, compatibility with patient relationships, and cost efficiency (Karim, et.al., 2018). Inequality in health services still occurs in East Java. This can be seen from the infant mortality rate in several underdeveloped areas, which is still relatively high. In addition, inequality is also seen in the uneven distribution of health workers, where most regions have a lower ratio of doctors than the average ratio in East Java (Fadilah, 2018).

#### *Health Behavior Indicator Relationship to HDI*

Based on the results of the bivariate analysis, it is known that health behavior indicators are significantly related to HDI in East Java Province. Risky health behavior is caused by inaccurate decisions taken when facing health problems, so this risky behavior can have short-term and long-term impacts on the public health situation. Toddlers with mothers who do not apply clean and healthy

living behaviors, such as washing hands with soap, have a 5 times greater risk of suffering from diarrhea than toddlers with mothers who apply clean and healthy living behaviors (Ruhardi & Yuliansari, 2021); adequate physical activity behavior by exercising can increase one's body immunity as a preventive effort in reducing the incidence of non-communicable diseases (Deniati & Annisaa, 2021); and smoking behaviour can contribute to the risk of death related to the respiratory system the most (Rachmawati, et.al., 2018).

Based on the results of multivariate analysis, it is known that health behavior has the greatest influence on the human development index. This is in line with H.L. Blum's theory, which explains that health status is influenced by four factors: lifestyle, environment, health services, and heredity. Among these factors, human behaviour (lifestyle) has the greatest influence compared to other factors. Health behaviour is a preventive effort to prevent disease, reduce the severity of disease, reduce the incidence of disease, and increase life expectancy in the community (Winoto, 2018). Therefore, health behaviour is directly related to changes in people's attitudes and behaviors in health development efforts. Healthy behavior has a direct effect on life expectancy in Bali Province (Felangi & Yasa, 2020). Research by Ardianti, et.al. (2015) shows that clean and healthy living behavior in Jember Regency has a negative effect on life expectancy. So that a decrease in clean and healthy living behaviour in one unit, a decrease of the life expectancy rate (Ardiyanti, et.al., 2015).

#### *Non-Communicable Disease Indicator Relationship to HDI*

Based on the results of the bivariate analysis, it is known that non-communicable disease indicators are significantly related to HDI in East Java Province. These results are in line with research by Nugroho (2016), which states

that indicators of the prevalence of injuries and joint pain make a major contribution to health development so that they can affect human development. In addition, the hypertension indicator makes a sufficient contribution to the achievement of health development. Hypertension can be influenced by several factors, such as age, gender, obesity level, stress level, physical activity, and lifestyle of each individual (Irawan, 2020). Obesity is a risk factor for other life-threatening diseases and adversely affects a person's quality of life (Runtuwe, et.al., 2022). The increasing incidence of obesity has an impact on the quality of public health and the achievement of the human development index (Soraya, 2019). This is because people with obesity tend to experience functional limitations, both physical and social (Runtuwe, et.al., 2022). Another non-communicable disease problem is oral and dental problems. In Indonesia, the most common dental problem is damaged, perforated, or diseased teeth (45.3%). Meanwhile, the majority of oral health problems experienced by the Indonesian population are swollen gums and/or abscesses (14%) (Kemenkes, 2018).

#### *Infectious Disease Indicator Relationship to HDI*

The infectious disease indicator is measured by three sub-indicators including pneumonia, diarrhea among children under five and upper respiratory tract infection among children under five (Tjandrarini, 2019). Pneumonia is an acute inflammation of lung tissue caused by microorganisms (bacteria, fungi, and viruses). Pneumonia can cause mild to severe symptoms. Pneumonia is also known as wet lung. In this condition, the infection causes inflammation of the air sacs (alveoli) in one or both lungs. As a result, the alveoli are filled with fluid or pus, making it difficult to breathe (Pratiwi, 2018). Diarrhea is an endemic disease, but it is still the cause of high child mortality worldwide and even

in Indonesia (Wahyuni, 2021). Respiratory tract infections are infections which occur in human breathing. This infection is caused by bacteria or viruses which attack the respiratory tract (Padila, 2019). Although it can occur at any age, ARI is more commonly experienced by toddlers under the age of five with a mortality rate of 40 per 1,000 births toddlers (Widianti, 2020).

Based on the results of the bivariate analysis, it is known that infectious disease indicators are not significantly related to HDI in East Java Province ( $p$ -value > 0.050). These results are not in line with research by Nugroho (2016), which states that the indicators of pneumonia prevalence and prevalence of acute respiratory infections contribute greatly to health development so that they can affect human development. Acute respiratory infections in toddlers are the most common cause of death in children in developing countries (Sabri, et.al., 2019). Acute respiratory infections of the lungs are a form of pneumonia. Pneumonia in toddlers is the leading cause of death among children under 5 years old in the world. Research by Pertiwi dan Nasution (2022) showed that maternal education, breastfeeding history, asthma history, house density, and house ventilation influenced the incidence of pneumonia in toddlers. Meanwhile, research by Pratiwi (2018) showed that pneumonia in toddlers was influenced by parents smoking habits, the habit of washing hands after coughing or sneezing, the habit of opening bedroom windows, and the habit of opening living room windows. According to Husna and Pratiwi's research, it is known that parental behavior, health history, and air circulation in the house affect the incidence of pneumonia in toddlers.

The diarrhea indicator in infectious diseases makes a significant contribution to the achievement of health development (Nugroho, 2016). Diarrhea also affects life expectancy in East Java (Amalia & Mahmudah, 2020). Most diarrhea in children

is caused by viral infections. In addition, it can also be due to bacterial infections, parasites, allergies, poisoning, intolerance, and side effects of drugs (Jap, 2021). The incidence of diarrhea is common among toddlers. This is because the immune system of toddlers is still weak and very susceptible to the virus that causes diarrhea (Wahyuni, 2021). Research by Limoy and lit (2019) shows that the incidence of diarrhea in toddlers is influenced by the mother's employment status. Meanwhile, research by Hartati (2018) states that education, knowledge, and hand washing behavior of toddlers affect the incidence of diarrhea in toddlers.

#### *Environmental Health Indicator Relationship to HDI*

Based on the results of the bivariate analysis, it is known that environmental health indicators are significantly related to HDI in East Java Province. Improving the environment can increase a country's life expectancy (Felangi & Yasa, 2020). Research by Ramadhani, et. al. (2020) shows that the proportion of households with access to sanitation has a positive effect on life expectancy. This means that if the proportion of households with access to sanitation increases, life expectancy will increase. However, Marita's research (2019) stated that the percentage of healthy homes and households with clean and healthy living behaviors reduced the contribution of IPKM below the national level.

#### **Conclusions**

Based on the results of data analysis in 38 districts and cities in East Java Province in 2018, it is known that the variables of toddler health, reproductive health, health services, health behavior, non-communicable diseases, and environmental health are significantly related to HDI. Meanwhile, the HDI value in each regency or city in East Java Province

can be predicted from indicators of health services, indicators of health behavior, and indicators of non-communicable diseases. The multiple linear regression model obtained is  $HDI = 44.831 + 20.347 * \text{Indicators of health service indicators} + 42.511 * \text{Indicators of health behavior} - 12.208 * \text{Indicators of non-communicable diseases}$ . Based on this model, it is necessary to pay more attention to health services, health behavior and trends in non-communicable diseases in the community in order to increase the HDI rate in East Java Province.

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## Gender-Based Development Discourse and Its Impact on Women Informal Workers in Yogyakarta

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### Abstract

Gender-based development in its implementation has challenges along with its characteristics, to be specific in efforts to achieve gender equality. Gender discrimination still occurs in Indonesia. It has become a culture in society which increasingly places women in a marginalized position. In this case, gender-based development is one of the main goals of the country's development, as stated in the 2005-2025 RPJPN. Gender-appropriate roles need to be supported by efforts to optimize the role of women to bring about active participation in the development and eliminate inequality experienced by women. One way to realize gender-based development is through empowering women in informal work. The method used is qualitative, and data collection is carried out through semi-structured interviews and content analysis on media which that refer to the topic. The data is analyzed using the Miles and Huberman models with data reduction, data display, conclusions drawing/verification, and given recommendations. The results of this study indicate that gender-based development in D.I. Yogyakarta has yet to succeed in reaching the understanding of the community, especially women informal workers.

**Keywords:** gender-based development; women; informal workers

### Introduction

Problems regarding informal women workers, are still interesting to discuss. There is an increase in the number of workers in the *Daerah Istimewa* Yogyakarta (D.I. Yogyakarta) area in August 2022, an increase of 12.61 thousand people from August 2021, so there are 2.24 million people. The increase in the percentage of employment has increased, especially in the Accommodation and Food and Drink sector

(1.61 percentage points), Transportation and Warehousing (1.31 percentage points), and other services (0.75 percentage points). Meanwhile, the fields of employment which experienced the most significant decline were Wholesale and Retail Trade (2.12 percent points), Government Administration, Defense, and Compulsory Social Security (1.00 percent points), and Processing Industry (0.43 percent point). In August 2022, the informal sector made the most significant contribution to the workforce, that is 53.38

percent, a total of 1.20 million people working in informal activities, down 1.98 percentage points compared to August 2021, 55.36 percent. Most of the working population are

full-time workers (67.06 percent). Part-time workers amounted to 28.18 percent, and underemployed 4.76 percent (BPS of D. I. Yogyakarta Province, 2022).

**Table 1. D.I. Yogyakarta IPG and IPM Index 2018 – 2020**

Year	IPM (Human Development Index)	IPG (Gender Development Index)	IDG (Gender Empowerment Index)
2018	79.53	94.73	69.64
2019	79.99	94.77	73.59
2020	79.97	94.80	74.73

The Gender Development Index (IPG/ *Indeks Pembangunan Gender*) is an indicator which describes the comparison between the Human Development Index (IPM/ *Indeks Pembangunan Manusia*) of women and the performance of men's IPM. The standard in interpreting the IPG is 100 because 100 is the complete comparison ratio. The smaller the GPA difference with a value of 100, the more balanced the development between women and men. The more significant the gap between the IPG score and 100, the more significant the difference in developmental achievement between girls and boys.

Based on Table 1, from 2018 to 2020 the IPG in D.I. Yogyakarta increased from year to year. However, the IPM fell in 2020 by 0.02 percent compared to 2019. When compared to IPM and IPG data in D.I. Yogyakarta the development gap between men and women is not significant because it is close to 100. Also in the Province of D.I. Yogyakarta data from the Central Statistics Agency (BPS/ *Badan Pusat Statistik*) recorded the score of IPG in D.I. Yogyakarta is 94.80 points in 2020, this value is the highest among other provinces in Indonesia (IPG Indonesia mean score is 91.06). IPG achievement in D.I. Yogyakarta shows the slightest interest in human development between men and women in D.I. Yogyakarta compared to other

provinces. The Human Development Index (IPM) for women in D.I. Yogyakarta was recorded at 78.46 points, while the IPM for men was 82.76 points (Dihni, 2021).

Apart from the gender development index (IPG), another measurement which is then used as a reference for assessing the involvement of DI Yogyakarta women in social, economic, and political affairs is the Gender Empowerment Index (IDG). IDG is measured through women's involvement in political participation based on women's involvement in parliament, while decision making is seen from their position and position as professional workers and economics is measured through women's income contribution. D.I. Yogyakarta is included in one of the five provinces in quadrant 1, that is the region with the largest IPG and IDG. From 2018 to 2020 the IDG score continued to increase and its peak in 2020 which reached to 74.73. This means that women's involvement in social, economic and political affairs is quite large, but not as significant as men's involvement.

#### *Women's Discourse*

Gender is not a new topic in academic research discourse in Indonesia and the world. However, the issue of gender is still

an exciting topic to be discussed. Because gender issues are discussed, viewing and analyzing them requires different perspectives. Until now, gender discourse has never found agreement on the concept of gender, ideology, and issues regarding gender (Niswah, 2021). Women's discourse is inseparable from developing thinking about gender equality and its practices. Gender equality practices are also assessed based on ideal and actual conditions which occur and develop yearly. The role of various parties in developing women's discourse is also one of the benchmarks for increasing awareness of gender equality. Gender equality is one of the goals of sustainable development, targeted to be realized in 2030. The issue of gender equality has become a global concern. The United Nations Development Program organization also echoes successful indicators of gender equality, one of which is carrying out reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance, and natural resources, under national law (Jatmiko, 2019). This is reflected in the stipulation of gender equality in one of the points of the Sustainable Development Goals (SDGs): achieving gender equality and empowering women and children. However, in implementing gender equality, there is still much homework to be considered, especially in the practice of gender equality in developing countries.

Gender equality needs to be reviewed comprehensively, considering the complexities necessary to achieve it. One of the reasons for the complexity of the process towards gender equality is that cultural values which are understood and grown in society have created a grouping of roles based on gender. Groupings which occur lead to discrimination of one gender or what is commonly known as gender bias. In practice, equitable development is still faced with cultural issues which are still detrimental

to one sex group, especially women, as well as cultural issues have not placed women in a vital position to be considered in decision-making (Dini, et al., 2020). In this case, women are an essential aspect which needs attention to eliminate inequality. At the global level, an indicator is used to measure gender inequality by considering these three aspects, to be specific, reproductive health, empowerment, and access to the labour market. This quantitative indicator aims to see whether gender-based policies can improve development (Tanzihah, et al., 2021). In this case, quantitative indicators need to be supported by a qualitative description of the facts, which will also add to the measurement of the success of gender-based development. In a study on national health insurance in Indonesia, there are still policy practices which make it difficult for women and do not support gender equality in implementation (Sciortino, 2023).

Gender equality must be achieved by improving the system on every line, especially in public policy. In gender-based policy practices, gender is no longer discussed in the context of conflictual interests and social power relations, and the form of rejection is discursive (Elomaki & Ylostalo, 2021). One form of gender equality policy implementation in Finland shows the depoliticizing effect of public governance reform on gender equality. In this case, there has been a shift towards the instrumentation and sidelining of gender equality policies, the narrowing of gender equality policies, and the bureaucratization of gender equality policies. Therefore, in forming a system supporting gender equality, it is necessary to consider multidimensional aspects in each process. Several approaches can be applied in forming a gender equality system, including the gender mainstreaming approach. Gender mainstreaming is pursued to achieve gender equality by ensuring that a gender perspective and concern for gender equality are at the heart of all activities, that is policy development, research, advocacy,

dialogue, legislation, resource allocation, planning, implementation, and monitoring (Syed & Ali, 2019). Gender mainstreaming means that all policies must meet the needs of women as marginalized parties, especially in developing countries.

A study conducted in Pakistan used gender mainstreaming practices and evaluated gender equality policies through a relational lens. The relational lens enables a holistic and contextual approach focusing on the interactions of gender, organizations, and systems while investigating issues related to inequality (Fagenson, 1990; Jabeen, 2001). Gender mainstreaming cannot realistically be achieved except by simultaneously considering interrelated macro-national environmental factors, meso-organizational interventions, and micro-individual heterogeneity (Syed & Ali, 2019). The first relational lens, macro-national, addresses social context, culture, and norms. Furthermore, meso-organizational focuses on organizational structures and routines which affect gender equality in the workplace and considers macro-national factors at the organizational level. Then the micro-individual relational lens, which considers individual issues, intersectionality, and employee agency, complements the other two relational lenses more specifically. This approach will then be used in analyzing gender equality which is already running in Indonesia.

Through a macro-national lens, a review of policies and regulations which can increase awareness of the importance of gender equality is carried out. It is starting from the ratification of several international conventions, such as the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) and the Beijing Declaration and Platform for Action (BDPA), to the issuance of laws to eliminate various gender discrimination and implement gender-based development (Dini et-al., 2020). Gender-based policies in Indonesia are the

implementation of the Presidential Instruction (Inpres) of the Republic of Indonesia No. 9/2000 concerning Gender Mainstreaming in National Development and Law No. 17/2007 concerning the National Long Term Development Plan (RPJPN/*Rencana Pembangunan Jangka Panjang Nasional*) 2005-2025, one of whose missions is to eliminate discrimination in various aspects, including gender.

In the meso-organizational lens, women's participation in the productive workforce is used as a reference for evaluation. Meanwhile, based on a review of panel data conducted during the 2011-2018 period, the Labor Force Participation Rate (TPAK/*Tingkat Partisipasi Angkatan Kerja*) or the percentage of the total labour force to the working-age population shows a consistent value, specifically the TPAK value of men is higher than that of women (Arifin, 2018). Even so, the value of the Gender Development Index (IPG) always went up in that period. Then, based on data reported by the Ministry of Women's Empowerment and Child Protection (Kementerian PPPA), the TPAK disparity between women and men in Indonesia is 1:1.5, with a percentage of women in employment of 53.1 percent and men 81.9 percent. In this case, the TPAK achieved in Indonesia is already above the world average. However, the disparity in achievement between women and men in the labour sector is still high. In addition, there are still many problems, such as violations of human rights (HAM/*Hak Asasi Manusia*) experienced by female workers and the lack of protection for informal female workers. Problems like this occur outside the calculation of Gender Inequality Index (GII) so it needs to be reviewed qualitatively to find the source of the problem and how to overcome it.

In the micro-individual relational lens, there are implications for women, as a minority in a male-dominated environment, on gender roles. In this case, women have two forms of

response to the context of the majority of men, that is taking a “masculine” role (rejecting stereotypes and discouraging differences and being equated with men) or taking a “feminine” role (accepting stereotypes and using them to their advantage) (Towns, 2022). Individual responses to these stereotypes can be applied within the family, which is the first place for a child to know about the outside world and its dynamics, including gender equality. For this reason, a woman needs to carry out her role as essential to realizing gender equality. Many families have implemented the practice of gender equality in the family in Indonesian society, and the community has implemented it in an implementable manner even though they do not yet understand gender (Qomariah, 2019).

### *Gender-Based Development*

Gender-based development is an elemental development in human development which focuses on gender mainstreaming itself (UNDP, 2022). Gender is a paradigm which penetrates the construction of male and female sexes, and then defines work roles, positions, and responsibilities in the collectivity of society. The placement of gender in development is not a guideline for development instruments but rather a development goal. This gender-based development provides the value that development should be inclusive and able to promote the interests of various entities, not just certain entities. As a global agenda, gender-based development embodies The Universal Declaration of Human Rights and the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW). The CEDAW convention mentioned that “the Universal Declaration of Human Rights affirms the principle of the inadmissibility of discrimination and proclaims that all human beings are born free and equal in dignity and rights and that everyone is entitled to all the rights and freedoms set forth therein, without

distinction of any kind, including distinction based on sex”. This statement could be one of the reference in gender development analysis.

Gender systems exist at various levels, from the household, neighbourhood, workplace, community, and the more comprehensive societal structure. Gender is a social practice which is institutionalized and socially constructed, forming gender disparities which are masculine and feminine. This gender is an initial shaper of reality, which changes reality and results from reality (Ridgeway & Smith-Lovin, 1999).

The greater the gender-based implementation, the greater the respect for human rights. So far, gender discrimination in development efforts still occurs. Coercion in “roles”, for example, many forced roles are not in line with the person’s nurture. Maximizing roles according to gender needs to be supported to encourage active participation in development. To facilitate these conditions, information disclosure must be transparent and with balanced control without leaning towards one entity (Nisak & Sugiharti, 2020).

In Indonesia, gender is closely related to state ideology. This state ideology creates a status, competence, and the role of men in development at both the micro and macro levels. Initially, Indonesia only placed women in the realm of household work. Women here must serve their husbands, children, family, and society, usually male. Women do not have a realm of power in decision-making and are only implementers of decisions initiated by men. As a result, there is only a single male actor in decision-making, so the decisions are only pro-male groups (Suryakusuma, 1996).

International organizations view Indonesia’s position in looking at gender as more conservative. Gender, in this case, women, is an objectification of a role and minimal participation. In the case of women who play a role in the formal sector, the

framework used is not designed according to the capabilities and nature of these women, such as the obligation to come to work for menstruating and breastfeeding women. This is, of course, unbalanced because this biological condition only belongs to women, not men. Therefore, there is a need for dualism in policy positions by emphasizing gender as the basis as well as the objectives of the policy (ILO, 1993).

Until the New Order era, women were seen only as a complement to men. After that, women's movements began to emerge in Indonesia as a forum for gathering to contribute ideas and movements for the progress of Indonesia. These movements include *dharma wanita*, *dasawisma*, fostering family welfare (PKK), and many other women's movements grouped in religious, cultural, and political institutions. One of the programs by women which later had a widespread impact to date is the integrated service post-program (*Posyandu*) which later became a link between the government's work and the PKK, which showed the involvement of civilian women (Beard & Cartmill, 2007).

The Indonesian government is committed to developing policies, especially gender mainstreaming, by prioritizing data-based policies. The data is derived from surveys and censuses with an index measurement instrument. Even so, there needs to be a more grassroots approach because if the numbers are not complete, the gender condition will convey the actual conditions and the causes and effects that occur, especially for vulnerable women, women with informal livelihoods, and women who live in rural areas (Ruyter & Warnecke, 2008). Target needs to reach these entities are strengthened by data in the 2005-201 National Long Term Basic Plan (RPJPN) 5, which states that women in Indonesia have a low quality of life.

The measurement of gender development in Indonesia is carried out

through the gender development index (IPG). The IPG is calculated based on the female human development index (IPM) ratio to the male IPM. Therefore the IPG only partially represents that the human development of men and women in that area is already high. Another concept which enters into gender development is gender empowerment which is then measured through the gender empowerment index (IDG). This IDG measures political, economic and social equality (BPS, 2020).

This IPG was formed based on the empowerment goals to be achieved in gender. IPG displays the imbalance of role freedom which occurs between women and men. This index also adopts the value of the global mandate contained in the 2015-2030 Sustainable Development Goals (SDGs). Gender mainstreaming is in goal 5, which states, "Achieving gender equality and empowering all women". In the SDGs, there is also the principle of "No Left Behind", which means that the goals of these SDGs must be equally valuable for every entity/sector (BPS of Sumatera Utara, 2022).

Gender mainstreaming or *Pengarusutamaan gender* (PUG) is crucial at every level of development, but it is especially important when creating plans and policies. This is done in an effort to balance the interests of men and women so that both can benefit from the outcomes of progress. PUG ensures that women have access to development processes and outcomes as well as opportunities. PUG implementation has more difficulties and opportunities in the period of regional autonomy. The integration of a gender perspective into development planning is governed by a number of regulatory frameworks in Indonesia. (Dina Martiany, 2011: 122).

The policy is the first strategy because the policy is a political commitment. The decisions in question were made by state agencies that control civilian behavior. Public policies are what they are known as

in Indonesia. Strategic policy proposals are based on the idea that government actions, both at the national and local levels, are crucial to mainstreaming. Evaluation of strategic policies in the public administration, economic, health, and education sectors is the first stage proposal. The second recommendation is to create a public policy on gender equality in development. This policy should serve as a broad framework for all other sectors and sub-sectors of government when formulating policies. Specifically, the regulations regarding PUG are outlined in Presidential Instruction (*Inpres*) No.9/2000 concerning Gender Mainstreaming in National Development. The issuance of this Presidential Instruction is the initial milestone in the implementation of PUG in Indonesia (Riant Nugroho, 2008).

Gender-based development will not be achieved without gender mainstreaming. Therefore it is necessary to form a rational and systematic strategy for achieving gender equality. Of course, each region has its characteristics and challenges when dealing with gender equality efforts. Furthermore, policies are formed from global, national, and then local. Implementing gender mainstreaming programs is also carried out at the district/city level by related regional apparatus organizations (OPD). Each region has the right to carry out gender mainstreaming practices and develop innovations to fulfill the practice's objectives. Involvement in policy-making by men and women from various sectors is necessary to achieve gender-representative policies (HUMAS UNY, 2022).

### *Informal Labour*

The informal sector has always played an essential role in developing countries. The urge to work in the informal sector is influenced by several problems, such as individual boundaries, that is education, age, and economic situation, and social boundaries

(gender and patriarchy) (Dadheech & Sarma, 2023). The informal sector is characterized as several units producing goods or services whose primary purpose is creating jobs and income. These units usually operate at a low organizational level, with little or no division of labour and capital as factors of production and on a small scale. Employment, if any, is partial. Most are based on odd jobs, kinship or personal and social relationships rather than contractual arrangements with formal guarantees (Asian Development Bank & BPS Statistics Indonesia, 2011).

Informal workers are workers who work in the informal sector. A lack of job security, low wages and limited access to health insurance and pension funds often characterize this type of work in the informal sector. Although working in the informal sector is an opportunity to earn income because they do not have access to formal work, there are problems in informal sector work, which are synonymous with exploitation and poor working conditions.

Empirical research shows that workers in the informal economy have a higher risk of poverty than workers in the formal economy, while informal economy units have lower productivity and income. Most people enter the informal economy not voluntarily, but because there are no other opportunities or opportunities to make a living in the formal economy (Rains & Wibbels, 2022).

Informal labour is closely related to the concept of the informal economy. The informal economy is defined as an economic arrangement which is heterogeneous. This economic arrangement means without any formal intervention. This situation then makes the informal economic seem more flexible from the positive side, but has a minimal negative side in terms of economic protection and security. The sector in the informal economy broadly includes, among others-household micro-scale entrepreneurs, labourers, and types of work that are new or less common in people's daily lives. The

informal economy is also closely related to “labour-intensive” work (Todaro, 1981).

The consistent development of modern and industrial growth and providing goods and services to low-income groups in most developing countries shows that the formal economy influences it. The global workforce and economy are informal, so the informal labour sector worldwide is increasing because of interests. Workers in the informal sector are neglected regarding employment opportunities because they may need formal education or certification that validates their skills and competencies (Mazumder, et al., 2017).

Job competition to get access to work in the formal sector is very high. Thus only those with highly qualified individuals are expected to participate in employment and take advantage of the advantages offered in the formal sector. On the other hand, the less experienced, especially those with low educational backgrounds, only have the opportunity to work informally and therefore receive relatively little income and compensation. However, formal jobs offer more opportunities for the working population, and informal jobs provide the income most people need. Therefore, the informal sector plays an essential role in running it. (Asian Development Bank & BPS Statistics Indonesian, 2011).

In Indonesia, informality is part of the labour market and has long been excluded from the formal regulatory environment. Informal sector workers in Indonesia are spread across a wide range of jobs, from street vendors to construction work, domestic work, and various forms of transit, mostly in short-term arrangements. Their income is often just above the poverty line, so they are not considered “poor enough”. Although not all informal workers are poor and not all poor people work in the informal sector, the informal sector in Indonesian is often associated with precarious employment and unstable income (Octavia, 2020).

The informal sector has a role in the wheels of the Indonesian economy. Its presence increases opportunities for low-income people to participate in the labour market, creating alternative employment opportunities for production and pendant. Due to high population growth and urbanization in Indonesia, many workers, particularly in urban areas, may be absorbed by the labour market in informal jobs. On the other hand, to survive, people experiencing poverty engage in generally any activity, even if an inadequate salary and abuse of working hours characterize a job. Therefore with the relation between the informal sector and people experiencing poverty, it is vital to learn more about various aspects of the industry, such as the production process, the social, economic and demographic characteristics of the workforce and the companies that compose it. People who work informally tend to have a lower level of education than those who work in the formal sector. In the informal sector, the lower the education level of workers, the greater the chance of being absorbed into informal work. Informal jobs have worse wages than formal jobs (Asian Development Bank & BPS Statistics Indonesia, 2011).

There is no doubt that informal sector work is a risky job. That risk usually reflects a combination of low earnings, uncertain length of service, and contingent payment schedules. These characteristics are common among informal sector workers; they have lower wages, work fewer days, are paid under short-term agreements, are more concerned about finding enough work, and have fewer assets to draw on financially during a crisis (Rains & Wibbels, 2022).

Challenges cause a high risk for informal sector workers. Challenges in becoming an informal workforce include minimum wages, lack of job security, and limited access to benefits such as health insurance and pension funds. Informal workers may work without contracts, benefits, or legal protection

and may be vulnerable to exploitation and abuse. Despite the challenges associated with informal work, there are benefits. Informal work can be the primary source of income for individuals who need access or opportunity to work in the formal sector because, in developing countries, there are challenges, to be specific the scarcity of formal sector jobs. For individuals with other priorities, such as raising children or caring for a family, informal jobs are suitable because they have higher flexibility than formal jobs. Then informal work also helps and can contribute to the local economy by providing goods and services that may be available through informal channels.

### *Women Workers*

Women in the sociological construction of society have two roles. In the internal scope, they act as housewives; in the external scope, they act as a professional according to their expertise. Historically, women have long been engaged not only in the domestic sector. Women have long been involved in matters of war, trade and leadership.

However, in reality, through these two roles, the burden women bear is also replicated according to their dual responsibilities. The patriarchal system which has so far been constructed in society creates superiority on the part of men fail to understand the conditions that women, homemakers, and workers must pass. Women who feel they are not valued and understand in what they have to go through make many women decide to separated ways from their partners because of these feelings.

Other problems experienced by women in the world of work do not stop at internal pressure. Many women experience discrimination in the stripping system. Women are required to work in a work system like men, which, in reality, is far from women's physical capabilities. There are concerns about the emergence of sexual understanding in the

workplace. For this reason, the problem with the condition of women in the world of work requires not only education or policies for women but also for men who are also part of society (Tyagi, et.al., 2021).

In neo-classical human resource theory, it is stated that there is a relationship between education, productivity, and wages. Sometimes, women fail in terms of productivity due to specific times which limit them biologically and psychologically. In ancient times, education for women was not intended for work but as an effort to have the opportunity to marry a man of high position. However, this view continues to change along with the awareness of women to be able to have their own will.

The power which develops in every era plays an essential role in interpreting women. Women must have diversification so that the assessment of women is not biased towards identity degradation, which leads to destructive meaning. Women with different skills can get more decent positions and wages in the labour market (O'Donnell, 1984).

### **Methods**

This study uses a qualitative method. Qualitative methods emphasize the exploration of social conditions and problems which exist in individuals and groups. The holistic and inductive nature of qualitative research makes qualitative research worthy of being used in looking at the whole to the depths of social conditions and problems (Creswell, 2014).

The case study in this research was conducted in the D.I. Yogyakarta. The method of selecting informants was carried out using a random sample of 14 female informal workers of productive age (18-65 years) representing each district and city in the D.I. Yogyakarta. Data was collected through semi-structured interviews and

content analysis on media sources which referred to the topic. Semi-structured interviews were conducted in depth in order to obtain comprehensive data.

**Table 2. List of Informants**

No.	Name	Age	Occupation	Domicile
1.	SS	26	Freelance	Gunungkidul
2.	ML	25	Content Creator	Gunungkidul
3.	DMR	25	Self-employed	Kulonprogo
4.	AA	25	Contract employees	Gunungkidul
5.	AH	21	Self-employed	Yogyakarta City
6.	MM	23	Freelance	Bantul
7.	P	50	Trader	Sleman
8.	S	35	Tailor	Bantul
9.	SR	24	Freelance	Sleman
10.	IF	35	Freelance	Yogyakarta City
11.	PM	23	Freelance	Yogyakarta City
12.	S	57	Trader	Bantul
13.	ASY	23	Content Creator	Sleman
14.	M	45	Trader	Bantul

Prior to the interview, an interview guideline was prepared, which contained (1) personal data of the informant: age, type of work, number of dependents, length of service, average income; (2) welfare: length of formal-informal education, health insurance, economic security; (3) self-involvement; economic, political, managerial (4) change: gender-based development perspective, empowerment which has been received. Interviews were conducted on April 11-25, 2023 in person, offline, face-to-face, or through online media. Documentation studies are carried out on books, journal articles, news articles, and policy documents. The documentation study data is coded for grouping based on its potential suitability in achieving research objectives.

The qualitative data obtained is by using a descriptive approach. The descriptive approach is defined as the appearance

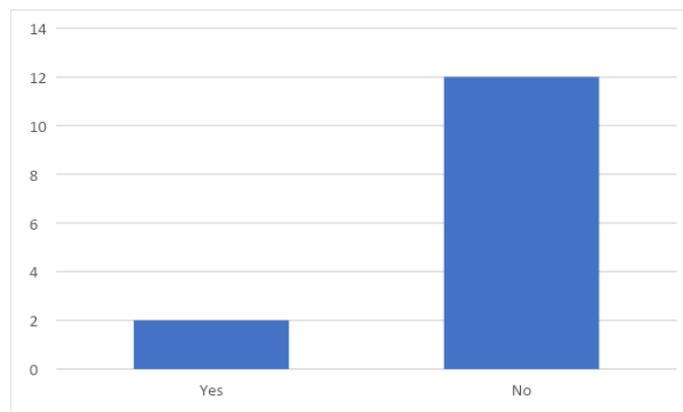
of data without adding facts so that it will display actual conditions, practices, processes, trends, and causal relationships of a condition or social problem (Calderon & Gonzales, 2018). Furthermore, the data were analyzed using the Miles and Huberman models with data reduction, data display, and concluding/verification steps. Interview data and secondary data which have been collected are then classified and reduced. The results of the reduction are then displayed and analyzed with the literature and theory. Besides that, this research used feminist analysis approach focusing on the way women are represented in literature is applied in conducting data analysis and policy analysis. Recommendations will also be given at the end of the article as suggestions regarding scientific paradigms and good practices (Miles, et al., 1994).

## Results and Discussion

### Data Description

Gender-based development in Indonesia primarily aims to provide equal opportunities for women in Indonesia. In practice, it is found that this discourse only partially reaches women. Indonesian women, who are the

target, should be given greater involvement because women can only represent the notion of women. Especially for women in the informal sector, the absence of the market as one of the transmitters of this discourse is also not captured by the government as a challenge which requires more performance from the government to convey gender-based development.

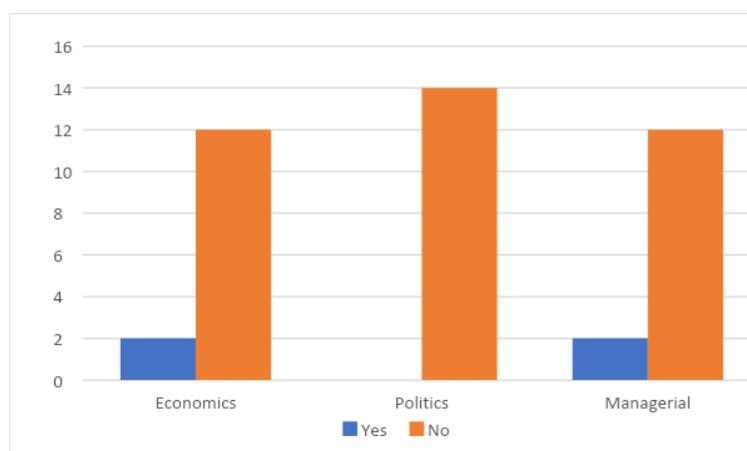


Source: Researcher processed (2023)

**Figure 1.** Knowledge of Gender Based Development

From interviews conducted with 14 informal workers in the Special Province of Yogyakarta, it was found that 12 of the 14 informants were unaware of any gender-based development program or agenda. These findings indicate that there is a large

gap between the organizing agenda and the legitimacy coming from the community. This finding also forms the basis for evaluating how far gender roles are positioned in development which has been carried out so far.

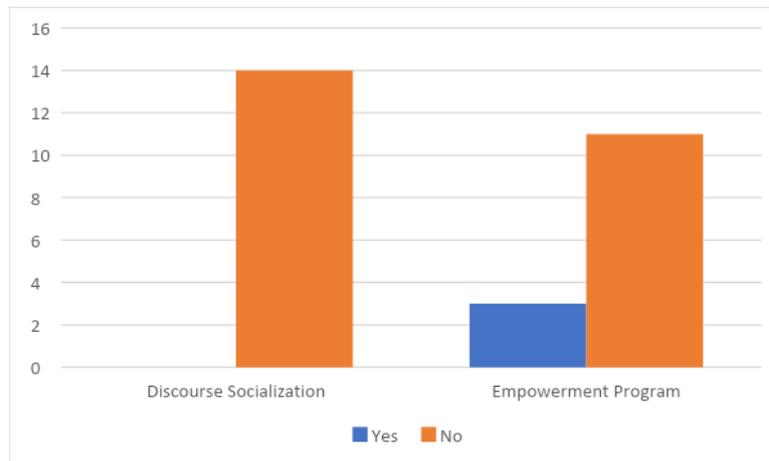


Source: Researcher processed (2023)

**Figure 2.** Involvement in the Development Sector

Gender-based development aimed at mainstreaming the role of women in the economic, political, and managerial fields is, in fact, less impacted on informal workers in D.I. Yogyakarta. Of the 14 informants, only two participated in economic management, none

participated in political management, and two participated in managerial management. The management work in question is in an association, both in formal and informal organizations in the local neighbourhood.



Source: Researcher processed (2023)

**Figure 3.** Socialization of Gender-Based Development and Empowerment Programs

The discourse on gender-based development, although so far has often been echoed through social media, has yet to receive any follow-up at the grassroots level. Even though socialization is needed on this issue because this issue is very vulnerable to the translation of its actions. In the sample of research informants, 14 people had never received gender-based development socialization, either based on the government or non-governmental organizations. Apart from that, as an effort to accelerate gender-based development, it was recorded that only 2 out of 14 informants had received the empowerment program. This fact is certainly a record in the gender development discourse which has been echoed. Especially for women informal workers, the opportunity to get socialization and empowerment programs will not be obtained from the workplace, which is different from formal workers.

#### *Gender-Based Development Evaluation*

Gender-based development is one of the big agendas in human resource development. This agenda concerns various actors because its implementation requires multi-sectoral roles. Unfortunately, until now, this development discourse has not yet fully touched various layers of society, so the impact of gender-based development cannot be fully felt.

“Never heard of gender-based development. Both in society and while still in college. So far, socialization has also not been carried out, even though this policy has been around for a long time, at least there should have been socialization” (ML, 2023).

Problems in gender-based development practices stem from various causes. The values in society also play a significant role in why gender-based development or

equality efforts are less advanced than in other countries based on nation-states. The culture places women at work in the home and complete obedience to men, hindering women from having a significant role and influence outside the household.

“Gender development in a patriarchal family is challenging. The family should be repaired first. So far, the connotation of women being more involved is very negative in the eyes of society. Women will be considered negligent in their original work of wells, mattresses, and kitchens. It is harrowing because no matter how big a woman’s role is outside, she will still be judged as a failure when she cannot carry out all the housework, which should also be able to share the workload with men” (EM, 2023).

Problems at the micro-household level which are so complicated in placing women’s work have sufficiently shown that society in Indonesia, especially with their historical conditions, is quite patriarchal in viewing the opportunity for women to play a significant role in development. From the household to the enormous scope of society, such as business owners, they also apply restrictions on the role of women in their work. Stigmatization such as there are only specific jobs that only men can do or that women are pretty troublesome when placed in a particular work position.

“Even though it does not have much personal impact, too many recruitments prioritize men. Even though in terms of ability, they have the same. In the end, many women struggle to get jobs and meet their daily needs” (PMI, 2023).

Informal women workers experience multiple difficulties. They still have to consider households and how to meet their financial needs. This workload inequality shows that

women have great potential to play a role in advancing the family or even society. Therefore, the stigmatization of women must be removed regarding the aim of increasing women’s empowerment.

“The bad stigmatization of women must be removed. I am the proof that women have the same power as men. With the large workload that I do, I have been able to meet my own needs. I am used to working late into the night, lifting tons of stuff, and being able to act logically and separate my feelings when I am working” (MM, 2023).

Gender-based development can provide better opportunities for women to explore their more significant potential. There needs to be balanced regulatory and law enforcement support so that gender-based development can run optimally. Informal women workers, in particular, must also give confidence and self-determination that, no matter how small their contribution, can significantly impact community development.

“One cannot expect too much from the government’s gender-based development. However, I feel the need for technical setup is bigger. Because it is useless if regulations are formed in such a good way, but the people themselves do not know. They are unaware that what they have been going through so far could violate women’s basic rights. Therefore I will contribute by starting myself. It starts with showing courage. Courage to stand up for opinions I believe may be different from men” (SS, 2023).

The conception of gender-based development will continue to evolve. However, the involvement of women in it should be noticed. Particularly for informal workers, gender-based development can be a minimal

justice solution within the household and informal work spheres. The synergy between the community, government, companies, academia, media and religious institutions will significantly influence the creation of universal, integrative, and sustainable gender-based development.

### *Discourse on Women Informal Workers*

Gender equality cannot be separated from discussions on women's discourse. Public policy is one way to improve gender equality. In the D.I. Yogyakarta there is a policy regarding informal workers and gender mainstreaming as an effort to realize the goals of sustainable development as stipulated in the Regulation of the Governor of the D.I. Yogyakarta No. 86/2019 concerning Amendments to the Regulations of the D.I. Yogyakarta. Regulation of the Governor of the D.I. Yogyakarta No. 34/2018 concerning Action Plans for the 2018-2022 Development Goals, this regulation contains how workers must obtain decent jobs and economic growth, and create gender equality. Based on interviews with several sources with various backgrounds, it appears that women have not fully understood the women's discourse developed by many policymakers. Even though many policy innovations are carried out every year, the meaning of gender equality and gender-based development has not been understood by the development goals themselves. In this case, it is necessary to pay attention to the legitimacy of the community towards the policy agenda because it cannot be denied that there are still aspects of conflict of interest and social power relations which can later become ticking time bombs in gender-based development efforts. In addition, gender-based development also needs to be adapted to the times that demand adjustments to the system and the dynamics of the social actors involved in the system. The prevailing social system will then influence the prevailing social structuring.

Meanwhile, based on the theory of structures put forward by Anthony Giddens, social structuring needs to combine structure with the agents involved in the structure. In this case, the prevailing social structure in society depends on the dynamics of the social agents involved (Giddens, 1984). This theory can be related to analyzing the discourse on gender equality in social structures which affect women's position in social life. Structure is closely related to individuals and influences from within the social agents involved, more precisely on social activities or actions carried out by these individuals. This is in line with the relational lens which highlights the application of gender equality at the national macro scale to the micro individual. The prevailing culture and norms have placed women in a vulnerable position due to their limited involvement. The existence of a culture which perpetuates the practice of gender inequality in society, of course, limits women in improving their skills. This has been happening for generations. Until now, the stigma restraining women still exists with the admission of several informants who are often faced with the choice between being a career woman or a housewife.

Policy narratives used in gender-based development must also be simplified and communicated in-depth to the public. It is expected that this will encourage women's awareness of the importance of their role in development. This effort can be started by implementing a women's empowerment program at the village level or the smallest community group. The women's empowerment program is expected to increase women's skills so that the system created to support gender equality implemented in government and companies can be utilized by women who also have work skills. In this case, women's empowerment can reduce the gap in knowledge between women and men, which is formed from the society's culture that existed for a long time. Most interviewees also did not participate in

the government's empowerment program, which should have been implemented at the regional level. Skills improvement is urgently needed by informal workers, mainly traders and MSMEs, to compete with the market. This gap in skills between women and men also drives the smaller opportunities and portion of involvement given to women in economic, political, and managerial development.

Although several laws and regulations in Indonesia and regulations implemented in several companies have paid attention to gender-equal recruitment, the implementation of women's roles in organizations aiming to empower women could be more optimal. In this case, the existence of *PKK*, *Dasawisma*, and the *Badan Permusyawaratan Desa*, which provide space for women to be involved in economic, political, and managerial management work, has yet to be fully utilized properly. Even though these organizations still exist and provide lots of space to improve skills, it turns out that not all people, especially women, feel involved in their activities.

The gender mainstreaming approach to achieving gender equality by placing a gender perspective as the core of all gender-based development policy formulation activities needs to be improved. The policy process must be reviewed, which consists of research, advocacy, dialogue, legislation, resource allocation, planning, implementation, and monitoring. This is done to instill the values of gender equality down to the grassroots level so that gender-based development policies can last and provide long-term effects for development. If gender mainstreaming has been appropriately implemented, women as marginalized parties should have received the same rights and opportunities as men. These rights and opportunities can only bring benefits if women themselves are profoundly understood as the main subject of gender-based development. In this case, efforts are needed to touch the understanding and awareness of women to fight for their own rights and support gender-based development

efforts launched by policymakers. Policy socialization is one of the fundamental efforts which must be carried out evenly throughout society. However, the facts on the ground show that many women still have never participated in socialization on gender-based development. Socialization can be done through activities in formal and informal organizations which are widely available in the surrounding environment, such as *PKK* and *Dasawisma*. For this reason, a review of the implementation of gender-based development can be carried out starting from formal and informal organizations in the community.

Work assistance for informal workers such as MSMEs, content creators, freelancers, and others has yet to be widely implemented. In this case, access to increased knowledge about reproductive health, empowerment, and access to the labour market could be better. The government then uses these three aspects to assess the success of gender-based policies in supporting increased development. Not only problems in policy socialization but problems in access to work need to be improved, especially for informal workers with all the following risks. Meanwhile, in the aspect of reproductive health which can be achieved through health insurance, it has yet to be fully implemented optimally. Several respondents said they did not have health insurance and had never received any assistance from the government. It cannot be denied that it is natural for women to experience menstruation every month, conceive and give birth, and breastfeed. This fact should not be a barrier for women to get equal opportunities in the world of work. Because of that, health insurance for women workers also needs to pay attention to aspects which have become the nature of these women. Every informal worker also needs the same right to get health insurance. For this reason, informal workers who do not directly receive health insurance from the companies which lay-off their workers need to increase awareness and knowledge

of the availability of health insurance and empowerment programs from policymakers.

In this case, if gender mainstreaming in the implementation of gender-based development policies in D.I.Yogyakarta is reviewed using a relational lens of macro-national scale (discussing issues related to social context, culture and norms), meso-organizational (structure and routines) organizations which affect gender equality in the workplace), and micro-individuals (considering individual issues, intersectionality, and employee agency), as described above, there is still much homework for policymakers which need attention. All three are interrelated and influential in maintaining the development of the discourse on women informal workers. When viewed broadly, this gender-based development policy has been implemented in a top-down manner, with regulations supporting women's involvement in government and companies. However, the existing problems are inequalities and discrimination which have become society's culture. This creates an imbalance of knowledge and skills between men and women. In this case, various gender-based development policies need to be implemented in more depth to touch the legitimacy of society or women themselves as subjects of development. Improving the skills and quality of existing organizations in the community can also be one of the things policymakers can strive for.

#### *Gender-Based Development of Informal Workers*

Gender-based development is an interesting subject to discuss. Placing gender in the development process is a goal. This gender development gives the value that development must be inclusive and able to advance the interests of various parties, not just certain groups. Gender-based administration plays a vital role in a country. The higher the level of maintenance, the better.

In Indonesia, gender discrimination is still the most crucial challenge in gender-based development. Women do not have the power to make decisions and are only the implementers of decisions made by men. Therefore, because there is only men's involvement in decision-making, decisions are only made by groups of men, so decisions only favour certain circles. However, the government is committed to improving this by developing policies, especially in gender mainstreaming, by prioritizing data-based policies, one of which is through a community census. Measurement of gender development is carried out using the Gender Development Index (IPG). By using the Gender Development Index (IPG), better understanding of how gender inequality in this dimension can be gained which affects overall human development in Indonesia.

The gender mainstreaming program is also carried out at the district/city level by the respective Regional Apparatus Organizations (OPD). Each area has the right to implement equality mainstreaming practices and generate innovations to help achieve practical goals. One of the programs which can be implemented is through training or outreach regarding gender-based development. The training and socialization which are carried out also need to consider several aspects and conditions of the target community, that is women. Understanding of the conditions experienced by women needs to be strengthened and made the primary material in evaluating government policies. The interviews show that in the policy socialization stage, several groups still need to be reached, specifically the group of informal workers who have many consequences and risks in carrying out their work. Training and outreach to groups of informal workers can be improved through activities and discussion forums in formal and informal organizations in the community. This will encourage women's ability to make decisions and place themselves in the development

portion. The development portion is obtained by participating in economic, political, and managerial community organizations. However, the interview results obtained information on the organizational sector of economic development in only 2 out of 14 informants. None of the informants participated in political activities, while 2 out of 14 took part in managerial organizations. These facts show that the involvement of women informal workers in organizations and economic, political, and managerial development still needs to be improved. Only a few of the informants followed these organizations.

However, from the interviews conducted, many still do not know what the discourse on gender-based development and the gender development index (IPG) is. Matters regarding gender-based development itself are widely discussed on social media. However, the implementation of the research sample, namely women informal workers, has yet to be carried out in the form of outreach or training. Even though this gender-based development has strong support, the sample desires to contribute to voicing gender-based development.

### *The Domain and Workload of Informal Workers*

The issue of the informal worker sector has various opinions and is an issue which is quite hotly discussed in developing countries. Informal workers are workers who work in the informal sector. The informal sector workers play an essential role in developing countries. Informal work can be an essential source of income for people who need access or opportunity to work in the formal sector due to challenges in developing countries that is the lack of formal jobs. The incentive to work in the informal sector is influenced by several things, including the limitations on individuals, namely education, age, and economic situation. Indonesia, in its economy, has a

vital role in the informal sector, which acts as a wheel of the economy. The existence of the informal sector increases the opportunities for the community to participate in the workforce. It is an alternative to job opportunities which take more work to find in the formal sector.

Education in the informal sector is closely related to low education. Based on the informants, the education obtained by all informants was through formal education, some supported by informal education. The education sample obtained ranged from passing compulsory education for 12 years, but some did not even complete compulsory education, only having education for up to 9 years, specifically junior high school.

Informal work is an alternative for women who want to do productive work without leaving reproductive work (housework). By working in the informal sector, women get more flexible working hours, so that they can be adjusted according to the time they have. In this case, the existence of women as housewives also needs to be considered as work that requires an allocation of time and energy, outside of productive work. Reproductive work in question such as cooking, washing, taking care of children, and cleaning the house. These jobs are jobs which cannot be abandoned by married women. For this reason, reproductive workload also needs to be included in the calculation of the workload of informal workers, especially women informal workers.

Even though informal work is considered to have good flexibility and is suitable for women workers, some informal work is still highly dependent on company management. Such as research conducted on informal workers who are online motorcycle taxi drivers, shows that company policies are still influenced by the stigma attached to women (Yustitia, 2021). This stigma affects the condition of women's subordination from productive work, the occurrence of harassment of women, and the real double burden experienced by women workers

(Yustitia, 2021). The same thing can be found in informal workers in D.I. Yogyakarta who are analyzed from the level of wages, availability of insurance, and social security that informal workers should have.

The informal sector workers are often identified as jobs with low wages, and no health or social security. The results of the interviews conducted showed that out of 14 informants of women workers in the informal sector, only 1 informant received social security. With this, women informal workers in D.I. Yogyakarta are vulnerable and have not received social security guarantees.

Health insurance obtained in the interview sample has different results when compared to social security. The results for health insurance are that 10 out of 14 people get health insurance in the form of *BPJS Kesehatan*. It can be said that the health insurance this informant had was more health insurance in the form of insurance in the *BPJS Kesehatan* program owned by the state; 10 out of 14 informants have *BPJS Kesehatan*, so it can be concluded that in terms of health insurance, they have more than social security.

The informal sector is often compared to the formal sector in income. They are starting from low income and inconsistent monthly income. The results of the interviews show that this is an actual thing that happened. Based on this sample, the income of the informal sector is still erratic and below the average minimum wage for the province of D.I. Yogyakarta, which is set at IDR 1,981,782.39. The specified minimum wage has been well calculated regarding the feasibility of living per month. However, many of the informants working in the informal sector still have income below the minimum wage. So informal sector workers are closely related to vulnerability to poverty.

The dilemma occurs because all citizens are entitled to good welfare. However, the informal sector in Indonesia is often associated with precarious jobs and unstable

income. There is no doubt that informal sector work is risky due to the existing challenges. For example, most informal workers do not have social security, but a larger sample has health insurance. Even so, some still do not have health insurance, so they are still considered vulnerable. The income of the informants is also erratic, and many still need to catch up to the minimum wage set by the D.I. Yogyakarta Province.

## Conclusions

Discourse on gender-based development has been proclaimed both at the global and national levels. This development is one of the pillars in efforts to develop human resources. Readiness in formal legislation and institutional regulations has also been formed to accelerate gender-based development goals, that is expanding the role of women in economic, political, and managerial work.

This formal readiness needs to be supported by vigorous law enforcement. There needs to be synergy from various sectors to strengthen the implementation of gender-based development. Women must be involved not only in being placed as objective actors but also as driving actors. Greater involvement of women in policy formulation and decision-making will place the policy or decision to be able to represent women's problems. Another challenge is that women, such as women in informal work, still need help with minimum safety guarantees.

Therefore, this research focuses on gender-based development discourse and its impact on informal workers. The study was conducted on 14 female informal workers in D.I. Yogyakarta. The result is that 12 out of 14 informants must be made aware of any discourse on gender-based development. The involvement of women informal workers in the economic, political, and managerial sectors is also still small, even though this

sector is used to measure the success of gender-based development. The informants of female informal workers also did not receive the socialization of this discourse and needed more access to the practice of women's empowerment programs.

The interview also shows that stigmatization and a double burden still occur for women informal workers in D. I. Yogyakarta. They feel that the culture which has been built so far still only benefits men. Even though many women have the same competence, with this gender-based development, it is expected that there will be awareness regarding the potential role of women and more respect for the opinions of the women themselves.

The recommendations we can convey in interpreting these conditions are. First, it is necessary to socialize more massively regarding gender-based development by relevant stakeholders so that the concept of gender development can be interpreted as an ongoing goal to be realized together. Second, it is necessary to allocate policies towards improving education for women as the best way to escalate the quality of women so that women can be more involved in development issues. Third, it is necessary to carry out periodic evaluations at the stakeholder and grassroots levels to understand the conditions, problems, and challenges of women so that they can be used as a basis for formulating the most appropriate gender-based development policies and processes.

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## Expectations of Educational Continuity among Beneficiary Families of the Indonesian Conditional Cash Transfer (PKH): A Case Study in Tabuan Island, Tanggamus Regency

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### Abstract

Implemented since 2007, The Indonesian Conditional Cash Transfer (PKH) program aims to alleviate poverty by encouraging education participation among the impoverished. Analyzing the educational expectations of PKH beneficiaries is crucial for program's impact evaluation. Changes in educational expectations indicate the awareness of poor families to invest in education. Moreover, examining socio-economic impacts on educational expectations offers insights into challenges faced by impoverished families. This study, conducted on Tabuan Island in Tanggamus Regency which is a remote area with inadequate educational facilities, investigates the impact of PKH over 15 years by 2022. Using primary data from two groups: PKH beneficiary families (intervention) and non-PKH families (control) – the research quantitatively compares their educational expectations. Further exploration involves logistic regression tests to examine socio-economic factors' influence on the intervention group. Results reveal PKH's positive impact on elevating beneficiary families' educational expectations. The analysis showed significantly higher educational expectations among PKH families compared to non-PKH families, particularly when excluding other educational assistance. PKH beneficiaries are estimated to be 10,269 times more likely to expect their children to graduate from college than non-PKH families. Internet access in the last 3 months, and participation in P2K2 counseling, have a positive impact on the PKH beneficiary families' educational expectations. This highlights the importance of positive educational information and the potential of information technology in supporting their children's education. However, it is concerning that despite having high expectations, families receiving PKH on Tabuan Island face challenges in ensuring their children's access to college education.

**Keywords:** poverty alleviation; education continuity expectations; the Indonesian Conditional Cash Transfer (PKH); education investment

### Introduction

Poverty often leads to limited participation in education, whereas low-quality education perpetuates poverty. Data from the BPS show that the rate of out-of-school children tends

to be higher among poor families, especially within the lowest-expenditure group. In 2021, the percentage of out-of-school children in high school within the lowest expenditure group was 31.39% (BPS RI, 2022). The Average Years of Schooling (AYS) in 2021

was also low, at 8.54 years. Many children in the lower-middle expenditure group (poor families) were enrolled in high school, but failed to complete their education; the education completion rate at the high school level is still low, at 65.94% in 2021 (BPS RI, 2021a).

The complexity of poverty issues forms a multidimensional poverty trap (Chambers, 1983). Kartasasmita (1996) also explained that low levels of education and health often contribute to the causes of poverty. Meanwhile, a study conducted by Zamroni (2010) revealed that education-related policies tend to favor and benefit the upper-middle-class population in urban areas with easier access, but are less favorable to the poor population, especially considering the difficulties in accessing education. Extreme poverty diminishes the priority of education for poor families, especially in remote or coastal areas. Constraints in coastal areas, such as limited public service infrastructure, low education levels, seasonal job opportunities, restricted access to clean water, and vulnerable food supply, cause the population to be trapped in multidimensional poverty and create pockets of poverty (Tukiran, 2010).

Therefore, addressing poverty requires a comprehensive approach beyond income improvement, and it is necessary to address the multidimensional aspects of poverty. Investment in education is an effective way to reduce poverty. Education plays a crucial role in alleviating poverty by improving living standards and providing better job opportunities (Hadna & Kartika, 2017). Poverty alleviation efforts that focus only on economic growth can widen inequality and are no longer effective in increasing living standards in developing countries (Tarabini, 2010).

Education investment is considered an investment in human capital that offers potential economic benefits and measurable returns (Gary Becker, 1964 in Unterhalter,

2009). Moreover, education contributes to broader aspects and values of human development that influence freedom, inequality reduction, and social justice (Amartya Sen, 1992 in Unterhalter, 2009). In the era of the Fourth Industrial Revolution and digital transformation, investing in education is crucial for enhancing the quality of human resources. However, poverty often hampers access to higher education, as poor families prioritize the basic need to pursue higher education.

Governments employ strategies, such as Conditional Cash Transfer (CCT) policies, to encourage poor families to invest in education. Family investment in education encompasses both monetary and non-monetary aspects, with non-monetary investments in developing children's cognitive abilities through education being more critical than monetary investments (Li et al., 2021). Therefore, many countries, including Indonesia, implement conditional cash transfer programs, such as the Family Hope Program (*Program Keluarga Harapan/PKH*), to alleviate poverty and improve access to education for the underprivileged population (Kemensos RI, 2021).

The PKH provides cash transfers to extremely poor households, with the condition that they fulfill certain obligations related to improving the education, health, and nutrition of their children. This program is designed to reduce structural poverty by enhancing quality of life through better access to public services, particularly education and children's health (Suharto & Thamrin, 2012). The implementation of PKH policy is also aligned with the Sustainable Development Goals (SDGs), which prioritize inclusive and equitable access to education (Bappenas, 2020). Family investment in education encompasses both monetary and non-monetary aspects, with non-monetary investments in developing children's cognitive abilities through education being more critical than monetary investments (Li et al., 2021).

As a Conditional Cash Transfer (CCT) policy, the PKH adopts two essential approaches for alleviating poverty. First, it provides short-term income support through cash transfers. Second, it breaks the intergenerational cycle of poverty by investing in human capital, particularly in children's education. With higher education, children are expected to have more opportunities for better jobs, leading to improved family welfare (World Bank, 2011). The CCT policy aims to enhance multidimensional well-being and change beneficiaries' behavior in the long term. However, the lack of theoretical foundations in the design and implementation of CCT programs has resulted in limitations in predicting the impact of programs and in understanding why some programs are ineffective. To address this, psychological models and theories have been proposed to provide a more comprehensive understanding of how CCTs can impact family and child educational achievement (Wolf et al., 2013).

Three psychological theories were utilized for this purpose: (a) Self-efficacy theory, which influences an individual's mindset and behavior; (b) Self-determination theory, which involves motivation and internalization of behavior; and (c) bioecological Systems theory, which places development within a broader context. The hypothesis model of CCT policy impact suggests that psychological changes in motivation, norms, and expectations regarding education among parents and children undergoing CCT programs are crucial for improving educational achievement (Wolf et al., 2013).

Previous studies have investigated the impact of the PKH program on education using various indicators such as participation rates, attendance, education expenses, and academic achievements. An impact evaluation conducted by Hadna & Kartika (2017), based on panel data from the SPKP 2007, 2009 and 2013 unveiled noteworthy results regarding the effects of the PKH initiative. Specifically, it demonstrated a

significant enhancement in primary school student attendance due to PKH interventions. However, the study did not observe a substantial influence on the rates of student participation or their academic achievements at this level. Conversely, at the junior high school tier, PKH exhibited a pronounced impact on both student participation rates and academic achievements. Nevertheless, its influence on student attendance rates remains inconclusive. These outcomes align with parallel research efforts employing data from the Indonesian Family Life Survey (IFLS), suggesting a positive correlation between the PKH program and increased school participation rates among adolescents aged 13-15. Notably, this effect did not extend significantly to children aged 7-12 and 16-18. Additionally, Susastro (2017) substantiates these findings, indicating a discernible rise in household education expenditures attributable to the PKH initiative.

These findings suggest that the relaxation income received through cash transfers directly contributes to investments in education and indirectly influences changes in education expectations within families. However, research on the indirect impact of the PKH program on beneficiaries' attitudes and expectations towards continued education is still limited. Education expectations refer to the hopes and goals individuals have regarding education and have been shown to influence educational investment and achievement. Conversely, data from the Central Statistics Agency (BPS) reveals that numerous families benefiting from the PKH program, potentially grappling with severe poverty, prioritize fulfilling fundamental necessities over educational pursuits. The March 2021 National Socioeconomic Survey (SUSENAS) data corroborates this trend, indicating that a substantial proportion (72.88%) of PKH households predominantly allocate the funds towards sustenance, with only 55.93% earmarking resources for educational purposes (BPS RI, 2021b).

Therefore, it is crucial to understand the role of the PKH policy in shaping the education expectations of its beneficiaries, particularly in coastal areas where extreme poverty is prevalent.

Investigating the impact of the CCT policy on education expectations is highly relevant within the context of poverty alleviation endeavors. Firstly, individuals' aspirations or expectations play a significant role in influencing their future actions and behaviors towards achieving their desired outcomes. Research evidence shows that education expectations have a direct influence on educational investment and achievement. Secondly, if the CCT policy successfully induces behavioral and attitudinal changes among beneficiaries regarding education, it can be expected that investments in education will persist even after the cessation of the cash subsidy program. Thirdly, when parents' education continuation expectations undergo positive transformations, it can improve their children's educational attainment, consequently shaping the children's expectations of the importance of educational investments as they mature (García et al., 2019).

This research holds importance in examining the impact of the PKH policy in coastal and remote areas that serve as pockets of poverty. Should it be established that PKH has positively influenced the education expectations of beneficiary families in such areas, it can be concluded that the implementation of PKH has significantly contributed to poverty reduction in Indonesia. Several logical reasons support this research: Firstly, coastal areas often face constraints related to lack of access and lower quality of education compared to other regions. PKH can provide incentives and financial support to beneficiary families, helping them overcome access barriers and enhance the quality of their children's education. This is expected to influence education continuation expectations in coastal areas. Secondly, the

PKH program necessitates the attendance and active participation of beneficiary families in group meetings and counseling activities. Through interactions with PKH facilitators and the information acquired, it is expected that family awareness and understanding regarding the importance of investing in education will increase. This can contribute in shaping positive expectations for education continuation. Lastly, parents play a crucial role in shaping education expectations. By providing cash transfers and assisting with basic needs, PKH can alleviate the financial burden on families and enable parents to prioritize their children's education. Parents with high expectations for education continuation are more likely to provide greater support to their children.

This research will focus on a case study conducted on Tabuan Island, which is a coastal and remote area located in Tanggamus Regency, Lampung Province. Tabuan Island represents the challenges faced by similar coastal and remote areas in Indonesia, where social issues such as poverty and limited access to education hinder development. Therefore, this study aims to provide valuable insights into poverty alleviation efforts in these areas. Additionally, the study will investigate the socio-economic factors that influence education expectations, such as the age, gender, and educational background of the family leader, the number of children receiving support, ownership of educational savings, receipt of other educational assistance, access to information, and participation in counseling programs. By examining these factors, the research aims to provide a comprehensive understanding of the poverty situation and educational expectations among residents in coastal areas. The findings will contribute as an additional reference for evaluating policies related to the implementation of the PKH policy, which has been running for 15 years in 2022.

## **Methods**

This study employs the *Comparative After Only* impact evaluation method to assess the actual impact experienced by beneficiaries due to policy implementation (*ex-post evaluation*) using a case study approach on Tabuan Island. This type of evaluation is conducted by analyzing what happens when the policy is absent (*counterfactual situation*), a control group is created to compare the outcomes with the group receiving the treatment (Khandker et al., 2010). The case study approach is chosen due to the diverse contexts encountered in policy implementation (Martinson & Brien, 2010). Quantitative methods are used to investigate causal relationships between independent and dependent variables (Creswell & Creswell, 2017).

The choice of Tanggamus Regency as the research site stemmed from its notable poverty rate (11.81%) and subpar educational conditions (average schooling years of 7.34). The study is specifically centered on Tabuan Island, a coastal enclave isolated from the mainland, characterized by constrained access to public amenities. The Village Geographic Difficulty Index (IKG) reflects the high access difficulties, with two villages (Kuta Kakhang and Suka Banjar) classified as having high access difficulties (IKG > 50), while two other villages (Sawang Balak and Karang Buah) have moderate access difficulties (IKG = 30-50).

The study is designed with an experimental approach employing a *Posttest-only Control Group Design*. The strength of this design lies in the randomization in selecting both research groups. Randomization is implemented in selecting both research groups, ensuring equal chances of sample selection and avoiding selection bias. This design facilitates statistical comparison between the two groups and offers time and cost efficiency in research (Anggoro, 2007; Campbell & Stanley, 1963).

Randomization on sample selection was executed through a one-stage cluster sampling method, employing the Local Environmental Unit (Dusun) as the cluster and families as the fundamental unit of analysis. A selection of Dusun was made randomly from the available options, and all eligible families within these Dusun were included in the sample, with their pertinent information collected. The chosen respondents were impoverished families with school-going children aged 6-21 years. Out of the 10 Dusun located on Tabuan Island, 6 Dusun were randomly chosen, and a total of 237 families, meeting the specified criteria, were selected as respondents. These respondents were further categorized into two groups: the intervention group consisting of 137 families receiving support through the PKH program and the control group comprising 100 families not enrolled in PKH.

The research incorporated both primary and secondary data. Primary data was collected through survey methods and questionnaires via direct interviews with respondents. Secondary data was obtained from relevant institutions such as the Central Bureau of Statistics (BPS), Tanggamus District Development Planning Agency (Bapperida), and local village offices. A literature review was also conducted to gather documents relevant to the research topic and aims, sourced from scholarly publications, books, journals, and websites.

Educational Continuity Expectations were assessed based on the expected level of education completion for children. This particular question did not employ a Likert scale but instead captured the expected attainment of formal education, including Elementary School/Equivalent, Middle School/Equivalent, High School (SMA/SMK/Equivalent), Diploma (D1/D2/D3), Undergraduate/D4, and Masters/Doctoral. The level of education expected to be completed by children (Educational Completion Expectations) was determined

by the number of years of education required. For analytical purposes, they were classified as 'Not Graduated from College' and 'Graduated from College.'

Quantitative data analysis techniques were employed in this study, including: (a) Descriptive Analysis, used to describe regional conditions and respondent characteristics, with the results presented in percentage distributions, cross-tabulations, and graphs. (b) Independent Samples T-Test, applied to assess the impact of PKH policy implementation on education continuity expectations by analyzing the significance of differences between the intervention group and the control group. (c) Independence Analysis (Chi-Square Test), used to examine the relationship between family socioeconomic conditions and education continuity expectations. (d) Binary Logistic Regression Analysis, used to analyze the influence of cash transfer of PKH and the socioeconomic factors of beneficiary families on education continuity expectations.

## **Results and Discussion**

### *Exploring Educational Challenges and Infrastructure on Tabuan Island*

Tabuan Island is located in Semaka Bay, Cukuh Balak District, Tanggamus Regency. The island covers a total area of 4,135 hectares and consists of four villages, namely Karang Buah Village (830 hectares), Sawang Balak Village (1,350 hectares), Kuta Kakhang Village (960 hectares), and Suka Banjar Village (995 hectares).

Kuta Kakhang and Suka Banjar villages face high Geographic Difficulty Index (IKG) due to the lack of facilities. All villages are geographically distant from the regency capital and require approximately 3 hours of sea travel. The majority of parents on Tabuan Island have a low level of education, with most having only completed primary school or equivalent education. The lack of facilities and high costs contribute to lower educational attainment. A decade ago, there were no junior or senior high school facilities on Tabuan Island, which led to parents hesitating to send their children to schools on the mainland due to high transportation and living costs.

The availability of basic service infrastructure is visible from the availability of health and education facilities on Tabuan Island. Educational facilities on Tabuan Island include 2 early childhood education (PAUD) units, 3 public elementary schools, 1 public junior high school, and 1 private Islamic senior high school (MA). However, health facilities are limited, with only one auxiliary health center unit located in Sawang Balak Village. The adequacy of educational facilities is evaluated based on the number of classrooms and the student-teacher ratio. Currently, the island has a sufficient number of classrooms to accommodate students at the elementary, junior and senior high school levels, and the student-to-teacher ratio meets the established standards. The ideal standard for student-teacher ratios is 20:1 for both the elementary, middle and high school levels according to Government Regulation.

**Table 1. Conditions of Elementary, Middle School and MA Education Facilities available in Tabuan Island, 2023**

<b>Educational Facilities</b>	<b>Number of Classrooms</b>	<b>Total number of teachers</b>	<b>The number of students</b>	<b>Student-Teacher Ratio</b>
SD N Sawang Balak	6	9	136	15,1
SD N 1 Karang Buah	6	9	78	8,7
SD N 2 Karang Buah	3	6	20	3,3
Junior High School 'Satu Atap' 2	3	10	95	9,5
MA Islamiyah P. Tabuan *	3	8	93	11,6

Source: RI Ministry of Education and Culture (2023 ) and ( \* ) Field Data (2023)

However, despite these adequate numbers, the quality of educational infrastructure remains a concern. School buildings and supporting facilities require repair and upgrading. Moreover, an issue frequently raised in interviews with impoverished families pertains to teacher absenteeism. Numerous educators holding Civil Servant (PNS) positions are non-residents of the island, contributing to their frequent absence. The challenges of accessing remote regions, adverse weather conditions, and inadequate teacher accommodations often lead to these absences. This concern is substantiated by data from the Analytical and Capacity Development Partnership (CPPS UGM, 2014), revealing that the rate of teacher absenteeism in remote areas of Indonesia (20%) is double the national average (9.4%). Furthermore, research conducted by Hadna and Kartika (2017) emphasized the grievances expressed by households benefiting from the PKH program, citing concerns about teacher absenteeism and dissatisfaction with the quality of educational facilities in elementary and junior high schools.

Similar to other coastal areas, the primary livelihoods for the majority of Tabuan Island's population are farming and fishing. Traditional farming and fishing practices are

commonly adopted by the local population. They face economic challenges due to limited income and heavy reliance on agriculture and fisheries sectors. Additionally, the geographical separation from the mainland makes agricultural and fishery products difficult to be marketed at an adequate price, thus exacerbating the issue of poverty on the island.

#### *The Impact of PKH assistance on Expectations of Educational Continuity among Beneficiary Families*

Education continuity expectations for poor families on Tabuan Island is quite high. This is evident from a significant proportion of parents in both groups who have high expectations for their children to graduate from college. The average number of years of education that children are expected to complete is also more than 14 years, indicating that poor families on Tabuan Island expect their children to at least achieve a diploma-level education. In other words, these families have higher expectations for their children's educational journey after completing senior secondary education. They expect their children to continue their education to a higher level, exceeding the

average length of education in Indonesia, which usually ends at junior high school level or equivalent (8.54 years). Furthermore, it outperforms the findings of Susastro's study (2017), which revealed that PKH assistance did not effectively enhance high school enrollment among Indonesian children aged 16-18 years.

There are slight differences between PKH beneficiary families and non-PKH families in educational expectations. The average number of years of education that children are expected to complete in PKH beneficiary families (14.56) are higher than those in non-PKH families (14.31). Nevertheless, these differences cannot be considered statistically significant. Statistical testing revealed there is no significant difference between the two groups in the average number of years of education expected for their children. This does not imply that PKH cash transfers have no impact on the educational expectations of beneficiaries. The data indicates that both groups have high expectations for continuing education. Probably, the impact of cash

transfers PKH has not been observed due to the influence of other educational assistance programs, such as the 'Kartu Indonesia Pintar' (KIP), which have been received by both groups.

To better assess the impact of PKH assistance, researchers conducted a comparative analysis of expectations for continuing education between PKH beneficiary families and non-PKH families who had not received KIP assistance in the past 12 months. The test results reveal the average number of years of education expected for children in PKH beneficiary families are significantly higher than non-PKH families. Similar results were obtained in the Chi-Square test, which indicated significant differences between PKH beneficiary families and non-PKH families in level of educational completion expectations. Therefore, it can be concluded that PKH assistance has an impact on the expectations for continuing education among beneficiary families. Further details can be found in the following table:

**Table 2. Differences in Education Continuity Expectations between PKH Beneficiary Families and Non-PKH Families on Tabuan Island in 2023**

Description	Whole Family Sample			Sample Families that Did Not Receive KIP		
	PKH Families	Non PKH	Significance of Difference	PKH Families	Non PKH	Significance of Difference
Number of Samples ( <i>n</i> )	137	100		47	52	
The average expected number of years of education for children.	14.56	14.31	Kolmogorov Smirnov Z = 0.947 p-value = 0.331*	14.34	12.87	Kolmogorov Smirnov Z = 2.055 p-value = 0.00**
<b>Expected Education Level</b>						
Did not graduate from college	35 (25.5%)	38 (38.0%)	$X^2_{count} = 3.642$ p-value = 0.056*	14 (29.8%)	37 (71.2%)	$X^2_{count} = 15.298$ p-value = 0.00**
College graduate	102 (74.5%)	62 (62.0%)		33 (70.2%)	15 (28.8%)	

Note: The hypothesis used is,

$H_0$  = There is no significant difference between PKH beneficiary families and non-PKH families

$H_1$  = There is a significant (higher) difference in PKH beneficiary families compared to non-PKH families

The decision to reject  $H_0$  if the p-value < 0.05

\*p-value >0.05 (Accept  $H_0$ ) \*\*p-value <0.05 (Reject  $H_0$ )

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Source: Results of Primary Data Processing (2023)

In the beginning, the parents of PKH beneficiaries enrolled their children in school because they were motivated by the prospect of receiving financial assistance through PKH. This externally motivated behavior gradually becomes internalized, transforming into intrinsic motivation and voluntary behavior that becomes inherited in poor families (Wolf et al., 2013). One aspect of this intrinsic motivation is reflected in the increased expectations for educational continuity among parents and children. This finding aligns with the research conducted by García et al., (2019) in Colombia, which examined the impact of the *Familias en Acción* (FA) program, a conditional cash transfer (CCT) policy similar to PKH in Indonesia. The results demonstrated a positive impact of the program on parents' educational expectations, with an average 11 percent increase in their aspirations for their children to pursue higher education.

Parents' educational expectations play a crucial role in determining the educational journey of their children, particularly in impoverished conditions. It is hoped that the shift in expectations among PKH beneficiary families will foster an increase in educational attainment for their children. A higher level of education can subsequently influence the child's perception of the importance of investing in education as they become adults and start families, leading to multi-generational improvements. This represents the primary objective of the PKH policy: to break the cycle of poverty due to impoverished living behavior.

### *The Influence of Cash Transfers from PKH on Education Continuity Expectations*

Expectations for continuing education, assessed based on level of educational completion expectations, were selected for further analysis to explore the correlation and influence of the socio-economic conditions of impoverished families in Tabuan Island and the PKH cash assistance. This variable reflects respondents' spontaneous answers regarding their hopes for their children's educational achievements. These responses were considered to represent genuine expectations, as they were expressed sincerely, taking into account the realities, beliefs, and parental abilities. Educational expectations are assumed more realistic when they are based on reasonable expectations within a specific context, considering the existing potentials and limitations (Dockery et al., 2022).

Statistical analysis using Binary Logistic Regression was conducted, with the dummy variable Graduated from College=1 and Not Graduated from College=0. The Socio-economic factors presumed to be related to expectations for continuing education include gender, age, education level of the family leader and, education level of the mother, number of children being supported, ownership of savings/assets for education, internet access in the last 3 months, relatives providing assistance, and acceptance of PKH cash transfer. Bivariate analysis, specifically the Chi-Square independence test, was conducted to assess the correlation between the independent variables and the expected level of education. Only the variables that

showed a statistically significant correlation were included in the subsequent Binary Logistic Regression analysis. Further details can be found in the following table:

**Table 3. Summary of the Chi Square Independence Test Results between Independent Variables and Variable of Expected Level of Education Completion**

Independent Variables and Categories	Expected level of education completion				p-values	
	Not Graduated from College		Graduated from College			
Gender of the family leader	- Man	46	46.5%	47	1.0%	0.235
	- Woman	5	5.1%	1	47.5%	
Age of the family leader	- ≤50 years	16	16.2%	7	7.1%	<b>0.082**</b>
	- >50 years	35	35.4%	41	41.4%	
Education level of the family leader	≤ Junior High School	50	50.5%	33	33.3%	<b>0.001*</b>
	> Junior High School	1	1.0%	15	15.2%	
Education level of the mother	≤ Junior High School	45	46.9%	42	43.8%	0.484
	> Junior High School	3	3.1%	6	6.3%	
Number of children under financial support	- 1-2 children	37	37.4%	33	33.3%	0.846
	- > Two children	14	14.1%	15	15.2%	
Ownership of savings/assets for education	- None	20	20.2%	3	3.0%	<b>0.001*</b>
	- Have	31	31.3%	45	45.5%	
Internet access in the last 3 months	- No	23	23.2%	19	19.2%	0.725
	- Yes	28	28.3%	29	29.2%	
Relatives providing assistance	- There isn't any	19	19.2%	13	13.1%	0.386
	- There is	32	32.3%	35	35.4%	
Acceptance of PKH Assistance	- Non PKH	37	37.4%	15	15.2%	<b>0.001*</b>
	- PKH beneficiaries	14	14.1%	33	33.3%	

\*p-value < 0.05 \*\*p-value < 0.1

Source: Results of Primary Data Processing (2023)

According to the test results, several independent variables showed a significant correlation with expected level of education completion for children at a 95% confidence level. These variables include education level of the family leader, ownership of savings/assets for education, and acceptance of PKH cash transfer. Additionally, the age of the family leader was found to have a significant correlation with the expected education level for children, with a confidence level of 90%. However, other variables did not demonstrate a correlation relationship and were therefore excluded from the Binary Logistic Regression analysis.

To assess the effect of PKH cash transfer on changes in expectations for continuing education, the analysis was conducted in two stages. The initial phase involved the exclusion of the PKH assistance acceptance variable, while in the subsequent stage, this specific variable was included for analysis. Then the results of the two analyses were compared to determine the significance of PKH assistance in influencing expectations for continuing education. This was done by comparing the **Nagelkerke R Square** and the obtained **Odds Ratio**. If there is a change of more than 10 percent, it can be concluded that PKH assistance has a significant effect on expectations for continuing education.

**Table 4. Summary of Logistic Regression Analysis Results, Changes in Odds Ratio and Changes in the Value of the Coefficient of Determination between Stage 1 and Stage 2**

Variable	Stage 1 (Without Var. PKH)			Stage 2 (With Var. PKH)			$\Delta OR$ Percent  OR2-OR1
	Coef (B)	Sig	OR1 Exp(B)	Coef (B)	Sig	OR2 Exp(B)	
Constant	-2.664	<b>0.001</b>	0.070	-4.436	<b>0.000</b>	0.012	82,86
Age of the family leader	0.759	0.185	2.136	0.940	0.154	2.561	19.90
Education level of the family leader	3.070	<b>0.007</b>	21.550	2.652	<b>0.022</b>	14.178	34,21
Have education savings	2.082	<b>0.003</b>	8.022	2.855	<b>0.000</b>	17.378	116.63
Acceptance of PKH Assistance	-	-	-	2.329	<b>0.000</b>	10.269	
Coef. Determine	Stage 1			Stage 2			Percent Change
Nagelkerke R-Square	0.379			0.539			42,21
Overall Percentage	70.7			79.8			

Source: Results of Primary Data Processing (2023)

According to the summarized analysis table above, the independent variables that have been partially proven to have a significant impact on education continuity expectations are: the education level of the head of the family leader, ownership of savings/assets for education, and acceptance of PKH assistance (p-value <0.05). The influence of PKH assistance on expectations for continuing education is considered significant, as evidenced by the positive changes in the Nagelkerke R Square value. Initially, without considering the PKH assistance variable, the Nagelkerke R Square value of 0.379 indicated that the independent variables accounted for 37.9 percent of the variation in the dependent variable. However, when the PKH assistance variable was included in the second-stage analysis, the Nagelkerke R Square value increased to 0.539, indicating a substantial improvement in the ability of the independent variables to explain the dependent variable, accounting for 53.9 percent of the variation. The observed change of 42.21 percent shows a significant impact of PKH assistance on expectations for continuing education.

The impact of PKH assistance on the dependent variable can also be observed by examining the changes in *Odds Ratio* or Exp (B) of other independent variables when the variable acceptance of PKH assistance is included in the analysis model. The percentage change exceeding 10 percent further supports the notion that PKH assistance acts as a moderating variable for other independent variables in influencing expectations for continuing education.

Additionally, the partial Odds Ratio value for acceptance of PKH assistance is 10.269, indicating that families as PKH beneficiaries are expected to be 10.269 times more likely to expect their children to graduate from college compared to non-PKH families. Moreover, based on the output 'classification table' in the second stage, the overall percentage value is 79.8, showing that the research model's accuracy in predicting education continuity expectations is 79.8 percent.

#### *The Influence of Socio-Economic Factors on Education Continuity Expectations among PKH Beneficiary Families*

The mechanism for providing PKH assistance as a CCT policy requires beneficiaries to attend Family Capacity Building Meetings (P2K2) sessions conducted by PKH facilitators. These sessions provide learning and information on child care and education, which expose parents to new ideas and increase their awareness of the importance of education. This, in turn, influences their preferences and encourages investment in human capital. Families that have been participating in the program for a longer period have access to more information and knowledge, leading to higher awareness and expectations regarding their children's education compared to recently enrolled families. Therefore, the independent variables were expanded to include the duration of PKH acceptance and participation in P2K2 coaching, in addition to other socio-economic factors that are believed to influence education continuity expectations.

**Table 5. Results Summary of the Chi Square Independence Test between Independent Variables and Variable of Education level completion expected in PKH Beneficiary Families**

Independent Variables and Categories		Chi-Square value	p-values
Gender of the family leader	- Man - Woman	10.904	<b>0.001*</b>
Age of the family leader	- ≤50 years - >50 years	2.789	<b>0.095**</b>
Education level of the family leader	- ≤ Junior High School - > Junior High School	8.422	<b>0.004*</b>
Education level of the mother	- ≤ Junior High School - > Junior High School	0.357	0.550
Number of children under financial support	- 1-2 children - > Two children	0.018	0.894
Ownership of Savings/Assets for Education	- Don't have - Have	28.254	<b>0.000*</b>
Acceptance of Other Education Assistance (KIP)	- Didn't accept KIP - Accept KIP	0.379	0.538
Internet access in the last 3 months	- No - Yes	6.896	<b>0.009*</b>
Relatives providing assistance	- There isn't any - There is	0.000	1.00
Duration of PKH acceptance	- < 5 years - ≥5 years	0.899	0.343
Participation in P2K2 counseling	- Less Participation - Good Participation	5.438	<b>0.020*</b>

\*p-value < 0.05 \*\*p-value < 0.1

Source: Results of Primary Data Processing (2023)

Before assessing the influence of socio-economic factors on education continuity expectations, an initial analysis examines the relationship between socio-economic factors as the independent variables and the expected level of education for children as dependent variables. Based on statistical tests, socio-economic factors which at the 95% confidence level are significantly related to education continuity expectations in PKH beneficiary families are Gender of the family leader, Education level of the family leader,

Ownership of savings/assets for education, Internet access in the last 3 months, and Participation in P2K2 counseling. The age of the family leader is also found to be associated at a 90% confidence level. For more details, please refer to the summary table of bivariate tests using the chi-square test above. Only the independent variables that show a significant relationship with the dependent variable are selected for testing their influence using logistic regression analysis.

Logistic Regression Analysis was carried out using the *Backward LR method* in order to obtain the best model. The overall percentage value in the output classification table indicates the model's predictive accuracy for the response variable. A higher percentage reflects a better prediction accuracy. The results of the analysis get an *overall percentage value* of 81.8, indicating that the established model, has a prediction

accuracy of 81.8 percent for education continuity expectations of PKH beneficiary families. The Socio-economic factors included in the model have been shown to be able to predict expectations for continuing education, namely gender and education level of the family leader, ownership of savings/assets for education, access to the internet in the last 3 months and participation in P2K2 counseling.

**Table 6. Summary of Logistic Regression Analysis Results between Independent Variables and Education Level Variables that are expected to be completed at KPM PKH on Tabuan Island in 2023 (Variables in the Equation: Step 2)**

Variable	B	SE	Wald	df	Sig.	Exp(B)
Gender of the family leader	19.554	6135.329	0.000	1	0.997	310729399.67
Education level of the family leader	34.257	8913.168	0.000	1	0.997	754766362346718.9
Ownership of Savings/Assets for Education	1.911	0.534	12.794	1	0.000	6.759
Internet access in the last 3 months	1.026	0.505	4.136	1	0.042	2.790
Participation in P2K2 counseling	1.491	0.533	7.814	1	0.005	4.440
Constant	-21.137	6135329	0.000	1	0.997	0.000

Source: Results of Primary Data Processing (2023)

In order to gain a simpler understanding of the socio-economic factors that influence the education continuity expectations PKH beneficiary families, they are grouped into three factors, namely:

a. Factor of Family Leader

In this study, it was found that PKH beneficiary families with fathers who have good educational backgrounds (more than junior high school) tend to have higher expectations for their children's education,

particularly aiming for tertiary education. Parents view their children's education as an investment that can lead to better future opportunities. These expectations influence how resources are allocated within the family. The preferences of parents, in this case the family leader, towards investment in education have an important role in allocating resources in a family (Pratikto, 2018). The educational level of the family leader and his partner is one of the factors that influence family planning (Iskandar, 2008).

Indonesian culture places the father as the backbone as well as a role model for the family. The presence of a father is still considered important in shaping expectations for children's educational attainment. The results of the study show that PKH beneficiary families led by a woman, particularly widows, tend to have lower expectations for their children's education. This finding is consistent with a study conducted in Australia by Dockery et al. (2022), which showed that single parents, especially single mothers, generally have lower expectations regarding their children's educational achievements.

To summarize, the educational background of the father and the family's socio-economic circumstances have an impact on their expectations for their children's education. Fathers, in particular, are seen as influential figures in shaping these expectations, while the gender of the family leader also plays a role in determining the level of expectations for educational attainment.

#### b. Factor of Family Economic

Economic conditions play a significant role in shaping individuals' perceptions of the future, including parents' expectations for their children's education. Parents from higher socioeconomic backgrounds, as indicated by factors such as education, employment status, and wealth/assets, typically have higher aspirations and expectations regarding their children's educational attainment (Dockery et al., 2022).

In this study, the economic condition of PKH beneficiaries is described through the ownership of assets for education, as data collection revealed that none of the PKH beneficiary families had specific savings allocated for education. This highlights that, despite having high educational expectations,

there is a lack of financial planning to actualize these expectations. Conditions of poverty and uncertainty of family income cause basic needs to take precedence over saving for the future. In addition, the location of remote areas and far from financial institutions is also a factor in the low motivation in financial saving. PKH beneficiaries remain highly dependent on cash assistance, without actively pursuing asset development or savings for a better future. This also suggests that PKH beneficiaries with limited assets tend to have lower educational expectations.

#### c. Factor of Information Received

Residing in remote areas or with lack of access presents obstacles to individuals, as it frequently contributes to poverty and hinder their ability to access vital facilities, services, and information. Positive information regarding education has a significant impact on education continuity expectations. The lack of information regarding the returns on educational investments, positive externalities of education, or scholarships for poor children can prevent individuals from pursuing higher education (García et al., 2019).

In the present digital era, where information can be widely accessed through various digital platforms and the internet, the scarcity of educational information should no longer be a prevailing issue. However, for some people who live in remote areas and lack resources, information gaps still exist. As in the case of Tabuan Island where the research was conducted, limited cellular and internet networks, no gadgets, and low levels of knowledge are the reasons some families cannot access the internet. Families with internet access are assumed to have better information than families without internet access.

On the other hand, the limited amount of positive information regarding education experienced by poor families is also attributed to the lack of successful education examples in their social environment. Low expectations towards education may be a result of exposure to a disadvantaged social environment with limited positive role models (Duflo, 2012 in García et al., 2019). In the context of the PKH policy, beneficiary families are required to participate in the Family Capacity Building Meetings (P2K2) as a structured intervention to facilitate behavior change provided by PKH facilitators. This obligation enhances the interaction with PKH facilitators, leading to a flow of new information and insights. This interaction helps PKH beneficiary families to be aware and understand the importance of investing in education, which can potentially improve their expectations for the continuation of their children's education. This study found that PKH beneficiary families who had internet access in the last 3 months and actively participated in P2K2 counseling tended to have high expectations for their children's educational achievements.

#### *Expectations at Vocational Schools*

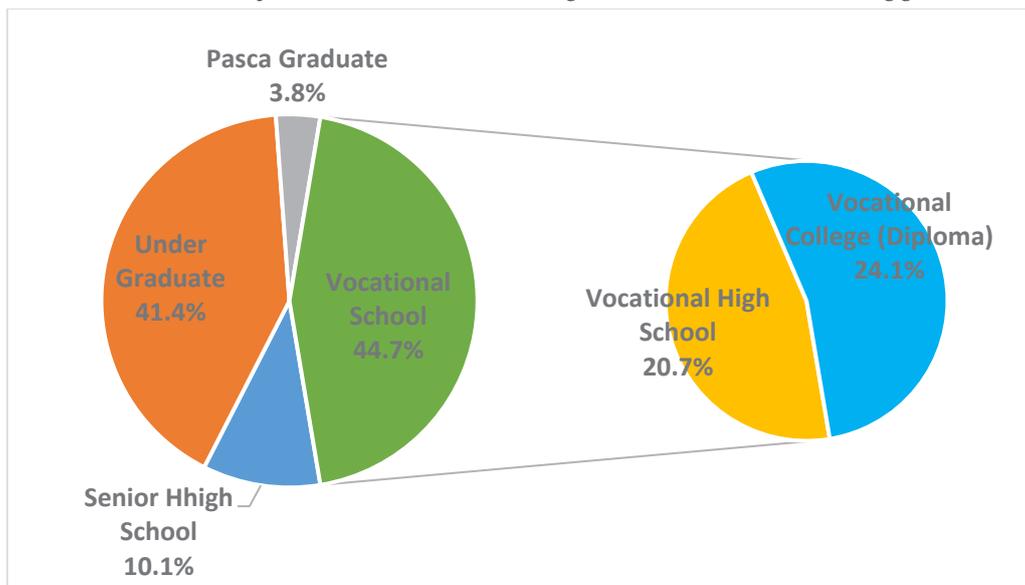
Investing in education is usually accompanied by expectations of future returns (Unterhalter, 2009). A family may choose to invest in

education to enhance income potential and other benefits in the future (Tilak, 2002 in Hadna & Kartika, 2017). However, for impoverished communities, the anticipated returns from education often revolve around economic benefits, such as improved well-being through better job opportunities and wages.

Therefore, educational expectations in poor families are often focused on short educational levels that can provide job opportunities soon after completion. This is evident in research findings that highlight the high expectations for vocational schools (*Sekolah Menengah Kejuruan or SMK*). In Pulau Tabuan, 44.7 percent of impoverished families expect their children to complete education at vocational schools, namely 20.7 percent at the SMK level and 24.1 percent at the Diploma level (D1/D2/D3).

These findings align with the results of a survey by the Ministry of Education and Culture in 2021, which indicates an increased interest in vocational education among the general population, both at the vocational high school (SMK) and vocational college levels. The reasons for this trend are because vocational schools have good job prospects or can work immediately after graduation, a wide range of program choices, and relatively shorter duration of education (Ministry of Education and Culture of the Republic of Indonesia, 2021).

*Expectations of Educational Continuity among Beneficiary Families of the Indonesian Conditional Cash Transfer (PKH): A Case Study in Tabuan Island, Tanggamus Regency*



Source: Results of Primary Data Processing (2023)

**Figure 1.** Percentage of Education Levels Expected to Complete by Children in Poor Families (PKH & Non PKH Families) on Tabuan Island

*Unrealized Expectations*

The data obtained shows that as many as 93.7 percent of PKH beneficiary children on Tabuan Island aged 6-12 years attended elementary school. Meanwhile, for children aged 13-18 years who received PKH, 90.2 percent attended junior high school, and 8.2 percent attended elementary or high school. Meanwhile, school enrollment declined for PKH beneficiary children aged 16-18 years, only 88.9 percent attended school right at the high school level and there were 6.3 percent

of children who dropped out of school. Limited access to educational facilities at the high school level is thought to be one of the reasons for the low enrollment at the senior high school level compared to other levels. Until now the facilities available on Tabuan Island are only 1 unit of private Madrasah Aliyah, so the education costs required are higher if they want to continue their education to high school or vocational school outside Tabuan Island. Details are presented in the following table:

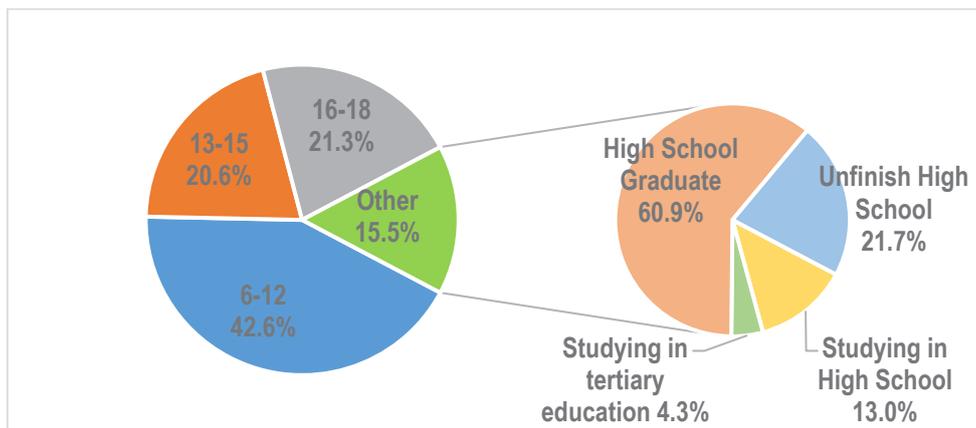
**Table 7. Percentage of School Participation of Children who Receive PKH by Age Group on Tabuan Island in 2023**

Child age	Never been to school	Studying in school		Drop out
		According to level	Not matching level	
6-12	1.6%	93.7%	4.8%	0
13-15	0	90.2%	8.2%	1.6%
16-18	0	88.9%	4.8%	6.3%

Source: Results of Primary Data Processing (2023)

The high expectation of continuing education in PM PKH beneficiary families is evident in the large number of those who expect their children to graduate from tertiary education, which is as much as 74.5 percent. However, these high expectations have not been followed by the participation of children who continue their education to tertiary institutions (diploma or bachelor's degree).

Out of a number of PKH beneficiary children who should have continued their education to tertiary institutions, only 4.3 percent actually continued on to tertiary level. There are 60.9 percent of children who have graduated from high school/equivalent but do not continue on to tertiary education, and there are even 21.7 percent who do not complete high school, as shown in the following figure:



Source: Results of Primary Data Processing (2023)

**Figure 2.** Percentage Diagram of PKH Beneficiary Children on Tabuan Island Who Should Continue in Higher Education, 2023

The factor that might explain the discrepancy between expectations and reality is the socio-economic conditions experienced. Children who cannot continue their studies on to tertiary education generally still have siblings or other family members who are studying at lower levels of education. The limited financial ability of the family to educate all their children forces parents to be unable to fulfill their hopes.

This condition also influences the decisions made by children to discontinue their education. Even if they may have good academic potential and motivation to continue to higher education, they feel hindered by the family's financial constraints in funding expensive education. Children from economically disadvantaged families are aware of the obstacles they face in achieving

success on par with children from more privileged backgrounds (Destin & Oyserman, 2009 in Boxer et al., 2011). The lack of parental support and the limited presence of successful educational role models in their social environment lead them to choose not to pursue further education. Instead, they prefer to work to help meet their family's financial needs. The percentage of PKH beneficiary children who should continue their tertiary education with working status is 91 percent, and the majority are informal workers in the agriculture and fisheries sectors.

When high educational expectations persistently encounter obstacles in their realization, it can lead to a decline in confidence and motivation, ultimately resulting in lowered expectations. This unexpected feedback is particularly evident

in poor beneficiary families. The low participation of PKH beneficiary children in higher education is evidence that the dream of breaking the cycle of poverty through educational investment in poor families still faces significant challenges.

## **Conclusions**

The results of the case study conducted on Tabuan Island provide insights into the effectiveness of the PKH policy in coastal and remote areas. This overview draws conclusions and offers practical implications providing valuable input and recommendations that can be applied to other remote areas with similar challenges or characteristics.

Breaking the cycle of poverty through human resources improvement among poor communities is a formidable task that requires a high level of commitment, as the results may only become evident after several generations. This study proves that the Program Keluarga Harapan (PKH) as a CCT policy implemented by the government to alleviate poverty has a positive impact on enhancing the education continuity expectations among beneficiary families compared to non-PKH families in Tabuan Island. Poor families who receive PKH have a 10 times greater chance of expectations for higher education. This difference becomes significant when the comparison excludes the education assistance provided by KIP. The positive change in expectations for continuous education among the poor communities is a signal that the goal is nearing attainment. Therefore, continuing the PKH policy as a poverty alleviation program is a decision that should be taken by the government, while making various improvements for a more effective program.

For PKH beneficiary families on Tabuan Island, besides the PKH assistance, the internet access in the last 3 months and

their participation in P2K2 counseling also significantly affect education continuity expectations. This reflects the crucial role of positive information related education in determining the change in educational expectations among poor PKH beneficiary families. For poor communities in remote areas, counseling sessions conducted by PKH facilitators are a channel to gain new insights and positive information regarding their children's education. Therefore, improvements in the facilitation program through P2K2 are necessary to enhance the effectiveness of the PKH policy, such as:

- Implementing a community cadres program to serve as PKH facilitation partners, providing an alternative solution for facilitators in remote areas who face challenges in conducting regular meetings due to limited access and high operational costs. The community cadres program is expected to increase the continuity and snowball effect of the coaching program within the local community.
- It is deemed necessary to design P2K2 coaching classes specifically tailored for PKH recipient children, especially those aged 13-18, as positive information about education is not only needed by parents but also by children from PKH recipient families. Therefore, besides motivation and coaching regarding the importance of education, these classes should also address digital literacy and adolescent health. P2K2 classes for PKH recipient children can be coordinated with local government programs such as adolescent health centers (Posyandu Remaja).

The government needs to respond positively to the imbalanced distribution of secondary education facilities and the strong interest of poor communities in vocational schools. In the specific context of Tabuan Island, it is crucial for the Tanggamus Regency

and Lampung Province governments to establish a vocational high school (SMK) within the island with vocational specifications that align with the main potentials of the island, specifically agriculture and fisheries. This will ensure that the educational offerings cater to the needs and characteristics of the local population.

This research has not addressed gender preferences, which can influence the participation and educational expectations of parents for their sons and daughters. Gender-related issues often pose challenges for poor families in making decisions regarding the allocation of household resources. Thus, further research is needed to compare educational expectations based on gender preferences.

It is important to note that this research is a case study with limited coverage in terms of the area and sample size. Therefore, the findings cannot be generalized. Conducting similar studies with broader coverage and larger samples would provide more comprehensive and generalizable information regarding the impact of PKH policies in different regions. Additionally, it is crucial for future research to compare the effects of PKH policies between urban and rural areas.

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## Collaborative Governance Process in MSMEs Empowerment through *Desa-Preneur Program* in Sidoarum Village, Yogyakarta

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### Abstract

Rural MSMEs have a small business scale in terms of capital, labor, market orientation, and limited technology adoption so *Dinas Koperasi* and *UKM DIY* (Department of Cooperatives and SMEs of the Special Region of Yogyakarta) implement MSMEs empowerment policy through the *Desa-Preneur Program*. The involvement of various stakeholders has been attempted, but this program has not fully targeted all Sidoarum MSME actors. This study discusses the process of collaborative governance in the implementation of the *Desa-Preneur Program* in Sidoarum Village, Yogyakarta. The research uses a qualitative descriptive method with primary data obtained from interviews, and secondary data collected through documentation and literature. The result showed that collaborative governance indicators have not been fully implemented. The role of *lurah* as program leader has not been maximized in carrying out the role as a program leader. Not all MSMEs actors participate in mentoring routinely and village economic institutions have not been formed. Several program achievements have been fulfilled, but still require consistent implementation of learning outcomes. The researchers suggest that village government to have more concern bridging out the provincial government and community in term of *Desa-Preneur Program* implementation. Institutional strengthening of BUMDes and cooperatives is important as a place of collaboration between stakeholders. *Desa-Preneur Program* in Sidoarum Village must be synergized with other programs and needs to involve other government institutions that support local MSMEs empowerment.

**Keywords:** collaborative governance; MSMEs empowerment; *Desa-Preneur Program*

### Introduction

Micro, Small, and Medium Enterprises (MSMEs) have an important role in the economic development of a country. Not only in developing countries, but in developed countries, such as countries in Europe, the United States, and Japan, MSMEs also have an important role, especially as a driving

force for economic growth, exports and as a source of innovation. In developing countries, discussions about small businesses are often associated with government efforts to overcome various economic problems by reducing unemployment, fighting poverty, and equalizing income (Tambunan, 2012).

The number of MSMEs in Indonesia still dominates. In 2020 the number of MSMEs

reach 64.19 million, contributes 67.97% of GDP or IDR 8,573.89 trillion and absorb 97% of the total workforce, and collect up to 60.4% of the total investment (Kementerian Investasi/BKPM, 2020). However, the export capability of Indonesian MSMEs is still limited, around 14.37% of total exports, and the use of e-commerce is still around 21% (detik.com, 2021).

Special Region of Yogyakarta (DIY) is a province with an economic character dominated by 98.4% MSMEs. It is difficult to be matched by other regions in terms of employment number of MSMEs which reaches 79%. However, the large amount of vocational and cultural education causes MSMEs in the Special Region of Yogyakarta (DIY) have superior potential in terms of

creativity. Not only the human resource factor, DIY is an area which has the availability of low prices raw materials (krjogja.com, 2017).

DIY Province is known as one of the tourist destinations in Indonesia so that DIY's tourism sector has an important role in the existence of MSMEs. This is influenced by the large number of tourist visits to DIY, also DIY known as the center of education has a magnet which attracts students and immigrants from all over the region. MSMEs products in DIY absorbed by tourists and newcomers (Oelistina, 2021). This is a driving factor for the rapid growth of MSMEs in DIY so that based on data from the official DIY regional planning agency (Bappeda DIY), the number of DIY's MSMEs is increasing from year to year.

**Table 1. The Number of DIY's MSMEs Based on Business Scale**

No.	Enterprises Scale	Year			
		2018	2019	2020	2021
1	Micro business	141,991	143,385	188,033	311,540
2	Small business	64,896	65,533	58,980	16,069
3	Medium business	39,196	39,581	30,664	2,110
	Amount	246,083	248,499	277,677	329,719

*Source:* Bappeda Provinsi DIY, 2021b

The challenges and problems faced by Indonesia show that the implementation of MSMEs development policies which have been carried out so far have not been effective enough to the target. In the last 10 years there has been no increase in the business scale of MSMEs from micro to small, small to medium and medium to large. This causes the number of MSMEs in Indonesia dominated around 99.99% and large-scale businesses only 0.01% (Wibowo, 2022).

The presence of Government policies contained in Government Regulation Number 7 of 2021 concerning the Ease, Protection

and Empowerment of Cooperatives and MSMEs provides three facilities for the growth of MSMEs, specifically the flexibility of limited company establishment for small medium enterprises, ease of production and financing and ease of marketing and post-production.

This regulation makes the scope of micro scale business wider than the scope stated in previous regulation. Currently, micro scale businesses have a maximum wealth of 1 billion rupiah excluding land and buildings for business premises.

According to Liedholm and Mead (1988), the characteristics of a lot of micro and small enterprises (MSEs) in Indonesia are located in rural areas, small towns, or large sub-urban areas. Based on that statement, the village is the lowest level of government area, but has great potential to country's economy. The problems experienced by rural MSMEs are that they have a small business scale, in term of capital, use of labor, market orientation, and have limited ability to adopt technology (TNP2K, 2021). In DIY, the development of the rural economy is still considered slow compared to economic development in urban areas. This is due to the fact that the potential of village resources has not been utilized optimally.

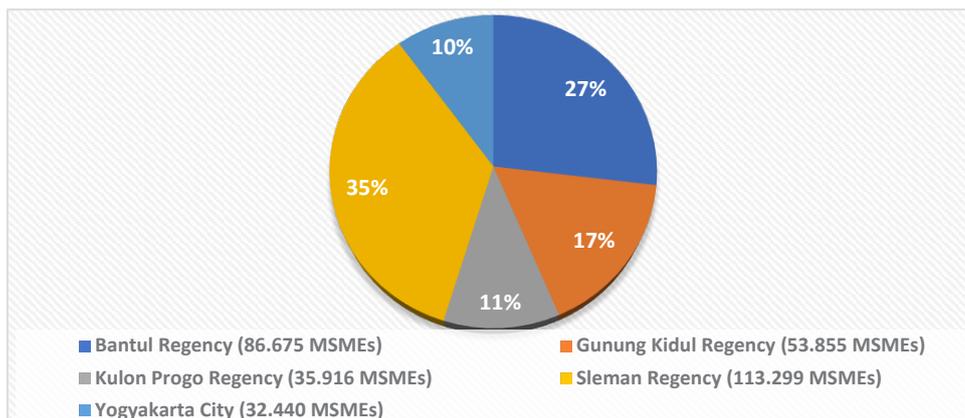
Based on these problems, it is necessary to organize the rural economy by utilizing village resources in accordance with the conditions and needs of the village community. Empowering regional-based MSMEs is one of the important solutions to drive the village economy. Dinas Koperasi dan UKM DIY (Department of Cooperatives and SMEs of the Special Region of Yogyakarta) made a breakthrough policy on empowering MSMEs, to be specific *Desa-Preneur* Program. This program implemented in the village as a form of response to the issue of welfare of rural communities through developing business potency, increasing entrepreneurial spirit and human resources quality for MSMEs in

DIY. Based on this, *Desa-Preneur* Program is carried out in the form of training and mentoring for MSMEs actors.

According to the Regulation of Governor of Special Region of Yogyakarta Number 93 of 2020 concerning *Desa/Kelurahan Mandiri Budaya*, that *Desa-Preneur* is a village which has the ability to grow village-scale business units and are cultivated by the community through strengthening entrepreneurial knowledge and skills, improving the quality of products/services, added value, and competitiveness with the aim of improving the village economy and achieving the welfare of the residents.

*Desa-Preneur* is present as one of the supporting programs for the realization of a *Desa/Kelurahan Mandiri Budaya* which is a knowledgeable, sovereign, integrity and innovative village to support and actualizing special values through the utilization of all resources and culture by involving the active participation of citizens in the implementation of development and community empowerment to realize the preservation of the universe of creation, prosperity and peace citizens in *Bhinneka Tunggal Ika*.

Sleman Regency has the largest number of MSMEs in DIY. In 2021, MSMEs in Sleman Regency which are spread across 17 sub-district areas reaches 113,299 business units or around 35% of the total number of MSMEs in DIY.



Source: Bappeda Provinsi DIY, 2021b

**Picture 1.** The Number of DIY's MSMEs Based on Administrative Region

However, Sleman Regency has a poverty problem which reach 108.930 people in 2021 (Bappeda Provinsi DIY, 2021a). In 2022,

the percentage of poor people in Sleman Regency is 7.74%, the second lowest after Yogyakarta City which is 6.62%.

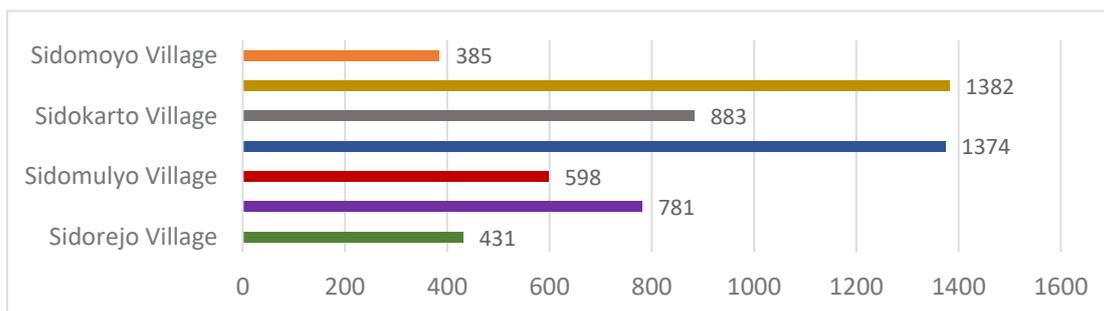
**Table 2. Poverty Line, The Number of Poor People by Region in DIY 2022**

Regency/ City	Poverty Line (Rp/Capita/Month)	Poor People	
		Amount (thousand)	%
Kulonprogo	381,666	73.21	16.39
Bantul	445,511	130.13	12.27
Gunung Kidul	350,739	122.82	15.86
Sleman	450,763	98.92	7.74
Yogyakarta	601,905	29.68	6.62
D.I.Y	521,673	454.476	11.34

Source: BPS Kabupaten Sleman, 2022

Sidoarum is one of the villages targeted by the *Desa-Preneur* Program. Sidoarum Village is part of the Godean Sub-District, Sleman Regency, which is a buffer area for the City of Yogyakarta, so it grows as a residential area and experiences rapid economic development. Sidoarum located

in a sub-urban area and developed into a destination for community activities. Sidoarum has the largest number of MSMEs in Godean Sub-District, it reaches 1,382 MSMEs.



Source: Dinas Koperasi and UKM DIY

**Picture 2.** The Number of Godean Sub-district's MSMEs

The involvement of various stakeholders to collaborate in the *Desa-Preneur* Program has been attempted to realize the development of MSMEs in the Sidoarum Village. However, the program which has entered its second year has not fully targeted the Sidoarum MSMEs actors. In accordance with the Decree of the Head of the Department of Cooperative and SMEs of Special Region of Yogyakarta Number 001.B/KEP/BID-IV/II/2020 concerning Guidelines for Implementing *Desa-Preneur*, effective marketing management and business strategy are the target of the second year of program. Based on this target, MSMEs in Sidoarum Village, which is dominated by the culinary sector, has yet to maximize digital platforms for business development.

The implementation of the *Desa-Preneur* Program cannot be carried out only by the government, but requires the active participation of non-governmental actors, such as MSMEs assistant facilitators and village economic institutions such as cooperatives and village owned enterprises (BUMDes) so that a consortium can be formed for joint marketing of MSME products for the local community. Based on this, the study of collaboration in government programs is important so that this research has a focus on the process of collaborative governance in the implementation of the *Desa-Preneur* Program.

## Literature Review

### *Collaborative Governance*

The development of the governance concept into collaborative governance is based on the desire to overcome government failures in implementing policies due to limited resources, politicization of budgets and regulations (Ansell & Gash, 2007). Kim (2010) underlined that government and/or market failures are the leading causes of collaboration between the government and civil society. Based on these failures, collaborative governance seeks to create, interpret, and implement policies through the participation of various stakeholders (Fitriani, 2017). According to Ansell and Gash (2007: 544), collaborative governance is “A governing arrangement where one or more public agencies directly engage non-state stakeholders in a collective decision-making process that is formal, consensus-oriented, and deliberative and that aims to make or implement public policy or manage public programs or assets”.

The concept of collaboration put forward by Ansell and Gash (2007) explains that the state has a major role in the collaboration which exists between the actors involved. Emerson, et.al. (2011) provided the view that collaboration does not have to be initiated by the government, but also initiated by non-government actors. The collaboration

model used in this research is collaborative governance according to Ansell and Gash (2007) through four main indicators, as listed below.

1. Starting Conditions

The initial conditions in the form of trust, conflict and social capital, become a resource in collaboration. This is a condition which can facilitate or hinder collaboration between stakeholders. This happens because each stakeholder has different conditions, such as 1) Power-Resource-Knowledge Asymetries which there is an imbalance of power, resources and knowledge, it will be difficult for these stakeholders to collaborate effectively. Power on stakeholders can be interpreted as ownership of organizational infrastructure that can support collaborative governance processes, 2) Incentives for and Constraints on Participation, discussing the forms of encouragement and constraints in collaboration. Gunton and Day (2003); Imperial (2005) states that the imbalance of resources has an influence on stakeholder motivation in collaborating. Meanwhile, Gray (1989) explained that differences in power between stakeholders affect their willingness to collaborate, and 3) Prehistory of Cooperation or Conflict (Initial Trust Level), that if there was conflict between stakeholders, so collaboration will not succeed unless there is a high sense of interdependence among stakeholders and positive steps are taken to restore low levels of trust and social capital among stakeholders.

2. Institutional Design

It refers to ground rules/operational standards which are important for the legitimacy of the collaborative process. Thing to emphasize in institutional design is about how the rules of the participation, how collaborative forums are formed and how transparency in the

process of implementing collaboration (Astuti, et.al., 2020).

3. Facilitative Leadership

Facilitative leadership is leadership which has an important role in maintaining clear ground rules, building trust, facilitating dialogue, and exploring common goals. Vangen and Huxham (2003) explain that facilitative leadership has an important role in empowering, and making all stakeholders collaborate.

4. Collaborative Process

The collaboration process is a cyclical form of the process of forming consensus which consists of:

a. Face to Face Dialogues

This dialogue is a process oriented towards the formation of a consensus/agreement. In the dialogue, it is explained that there is a condition of "mutual benefit" between stakeholders (Astuti, et.al., 2020). Bentrup (2001) explains that face to face dialogue can eliminate stereotyping and boundaries between stakeholders.

b. Trust Building

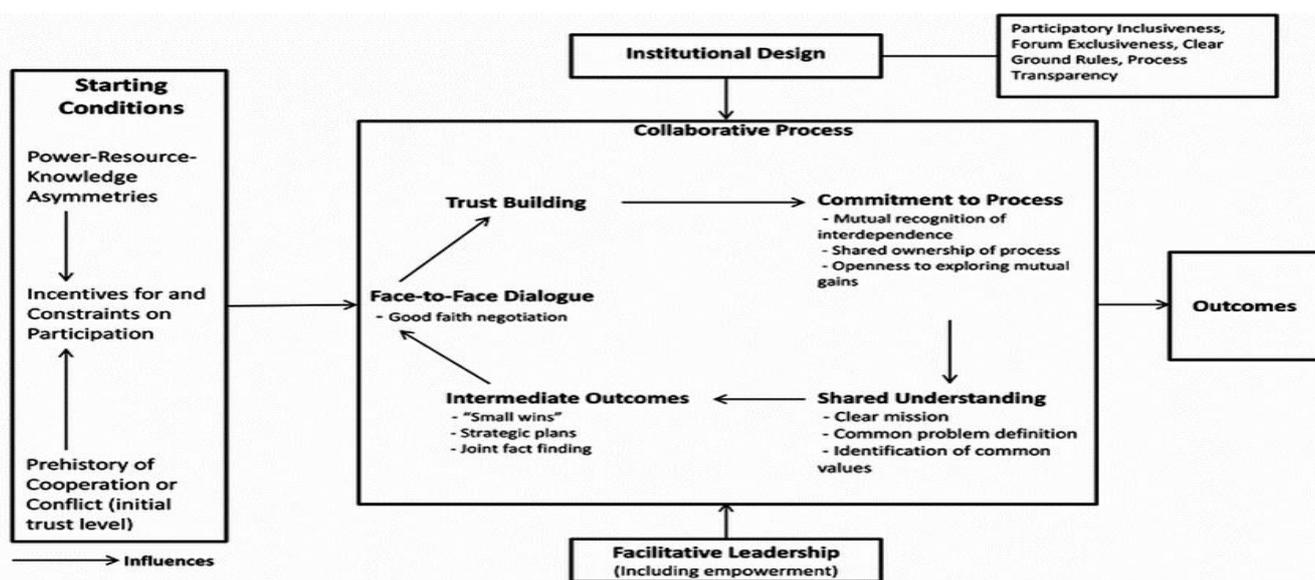
Trust building is closely related to the process of dialogue between stakeholders. The loss of boundaries and stereotyping between stakeholders triggering the building of mutual trust between stakeholders. Mutual trust between stakeholders can lead to commitment to the collaborative process.

c. Commitment to the Process

Commitment relates to mutual awareness of mutual need/dependence on each other, there is a feeling of mutual ownership of goals and openness in achieving common goals. The feeling of mutual need encourages a shared understanding of the collaboration.

- d. Shared Understanding  
Mutual understanding between stakeholders will be formed through clarity of vision, mission, values, goals, direction and collaboration strategy. A shared understanding of the collaborative process makes the formulation of the target easier to be achieved.
- e. Intermediate Outcomes  
This is an interim result which represents the real output of the

collaboration process. The results of the collaboration are in the form of simple targets, strategic plans and joint fact-finding results including problems, opportunities and solutions. Interim results become feedback on the collaboration process. This result can be a driving force in building trust and commitment with the stakeholders.



Source: Ansell & Gash, 2007

Picture 3. A Model of Collaborative Governance

The role of MSMEs in alleviating poverty and unemployment is related to a number of main characteristics of micro and small enterprises (MSEs), specifically as listed in the following. 1) The large number of MSEs spread all over rural areas including isolated areas. 2) MSEs are labor intensive, so that it can accommodate low-educated and female work force groups. 3) Many MSEs activities are based on agriculture, such as home industries including food and beverages, furniture and various kinds of handicraft products based on bamboo, wood and rattan

raw materials, and in Indonesia. the majority of the poor live in rural areas and derive their income from the agricultural sector. 4) MSEs generally produce consumer goods including food and beverages, apparel, footwear, and household furniture at low prices for low-income groups, so that their existence is very useful for poor households (Tambunan, 2012).

The Statistics Indonesia (BPS) defines an economic activity which carries out activities to change a basic item mechanically, chemically, or by hand so that it becomes

finished/semi-finished goods and/goods which are of less value into goods of higher value, and the activity close to the customer is referred as the processing industry. This

processing industry is classified into four based on the number of workers without regard to the use of machines and the amount of capital owned (BPS, 2022).

**Table 3. Industry Classification According to BPS (2022)**

Classification	Amount of manpower
Domestic industry	1-4 people
Small industry	5-19 people
Medium Industry	20-99 people
Big Industry	more than 100 people

Source: BPS, 2022

MSMEs is a business owned by an individual business entity which is not a subsidiary or branch of another company with the criteria of having business capital with certain limitations (Abdurohim, 2021).

Based on Government Regulation Number 7 of 2021 concerning Ease, Protection, and Cooperatives and SMEs Empowerment, the comparison of the criteria for MSMEs can be clarified as follows.

**Table 4. MSMEs Criteria Based on Government Regulation Number 7 of 2021**

Business Size	Criteria	
	Capital (excluding land and buildings)	Sales Results per year
Micro business	Maximum Rp. 1,000,000,000	Maximum Rp. 2,000,000,000
Small business	Rp. 1,000,000,000 up to Rp. 5,000,000,000	Rp. 2,000,000,000 up to Rp. 15,000,000,000
Medium Business	Rp. 5,000,000,000 up to Rp. 10,000,000,000	Rp. 15,000,000,000 up to Rp. 50,000,000,000

### *MSMEs Empowerment*

Empowerment is a word which comes from "power" (Suharto, 2005). The community empowerment strategy is interpreted as a community-centered development model which places greater emphasis on empowerment, by viewing community initiatives as the main development resource and viewing the material and spiritual welfare of the community as the goal to be achieved

(Hikmat, 2006). Empowerment is a concept which departs from emancipation and liberalization as well as structuring all power and control. Government policy of MSMEs empowerment is one of the efforts to create a conducive business climate. Several studies state that economic empowerment has two dimensions: an objective dimension related to income and productivity, and a subjective dimension by assessing differences in perceptions of things experienced by

individuals (Jitu, 2019). Thus, the main approach in the concept of empowerment is that the community is the subject of various development programs which can participate in determining the direction of policy goals (Farida, 2011).

The success of empowerment is influenced by the participation of MSMEs actors and other stakeholders who play a role in the development of MSMEs (Karsidi, 2005). Based on this, community empowerment has the principle which it is necessary to involve various existing and related actors in society, such as government, leaders, teachers, cadres, scholars, entrepreneurs, non-governmental organizations (NGOs), volunteers and other community members (Anwas, 2019). All actors are involved according to their respective roles, potentials and abilities. Schumpeter (1993) states that the realization of prosperity and economic resilience in a national or regional area is not only determined by the economic development strategy adopted and implemented by the government, but also determined by the role of strong, resilient, creative and dynamic entrepreneurs (Farida,

2011). Based on this statement, the concept of MSMEs empowerment is an important thing which must be done in improving the welfare and economy of the people in a region. Empowerment often equated with gaining power and access to resources to make a living (Pranaka & Moeljarto, 1996).

## **Methods**

This study uses a qualitative descriptive method to understand a phenomenon which has been raised and studied in depth. This qualitative research process involves important efforts, such as asking questions and procedures, collecting specific data from informants, analyzing data inductively from specific to general themes, and interpreting the meaning of the data (Creswell, 2010). The selection of research locations, analysis units and informants were carried out purposively with consideration of the suitability of the criteria for *Desa-Preneur* team with the criteria of collaborative governance which can be explained in the following table.

**Table 5. Criteria Suitability of Collaborative Governance in Desa-Preneur Program Participant in Sidoarum Village, Yogyakarta**

No.	Ansell and Gash (2007) Collaborative Governance Criteria	Collaborative Governance in the Implementation of <i>Desa-Preneur Program</i> in Sidoarum Village
1	Collaboration forums are initiated by public institutions/agencies	<i>Desa-Preneur Program</i> is mandated by the Regulation of Governor of Special Region of Yogyakarta Number 93 of 2020 concerning <i>Desa/Kalurahan Mandiri Budaya</i> on the point C paragraph (3) chapter 6. It is stated that <i>Desa-Preneur</i> administrators are Regional Government of Special Region of Yogyakarta in charge of the affairs in the field of cooperatives and SMEs. Meanwhile, based on the Decree of the Head of Special Region of Yogyakarta Cooperative and UKM Office Number: 001.B/KEP/BID-IV/II/2020 concerning Guidelines for Implementing <i>Desa-Preneur</i> it is stated that the implementation of <i>Desa-Preneur</i> development is under the authority of Department Cooperative and SMEs of Special Region of Yogyakarta can be consolidated with other actors.
2	There is the participation of non-government actors in collaborative forums	The actors involved in <i>Desa-Preneur Program</i> in Sidoarum Village consist of the local government, village government, business actors and the village community as MSME actors
3	Actors are directly involved in decision-making, not just being consulted by public institutions	All actors of the <i>Desa-Preneur Program</i> in Sidoarum Village are directly involved in a consensus-oriented process of decision making.
4	Collaboration forums are formally organized and meet collectively	The collaboration forum of the <i>Desa-Preneur Program</i> is officially organized based on Regulation of Governor of Special Region of Yogyakarta Number 93 of 2020 concerning <i>Desa/Kalurahan Mandiri Budaya</i> , and Regulation of Governor of Special Region of Yogyakarta Number 20 of 2022 concerning Technical Guidelines for <i>Desa-Preneur</i> Development and Decree of the Head of Special Region of Yogyakarta Cooperative and UKM Office Number 001.B/KEP/BID-IV/II/2020 concerning Guidelines for Implementing <i>Desa-Preneur</i> . Stakeholders' meetings held regularly through <i>SiBakul</i> workshops: "Empowerment of MSMEs through Village Entrepreneurship" as a regular FGDs.
5	Collaboration forums aim to create a consensus	In the decision-making process, all stakeholders of <i>Desa-Preneur</i> utilize the forum to create consensus.
6	The main focus of the collaboration is on the implementation of public policy/public management	The focus of collaboration of the <i>Desa-Preneur Program</i> lies in efforts to improve the economy of rural communities through rural MSMEs empowerment.

Based on the Decree of the Head of Implementation of *Desa-Preneur*, the Special Region of Yogyakarta Cooperative and UKM Office Number 001.B/ KEP/ BID-IV/II/2020 concerning Guidelines for

Implementation of *Desa-Preneur*, the informants in this study as as listed in the table below.

**Table 6. List of Informants**

No.	Stakeholder Involvement	Stakeholder Element	Informant Selection Criteria
1	Indirect Engagement	<i>Paniradya Kaistimewan</i>	<i>Paniradya Kaistimewan</i> acts as observer, discussant and coordinator of alignment of activities on village empowerment and development through <i>Desa-Preneur</i> Program concerning implementation of Special Grant ( <i>Dana Keistimewaan</i> DIY).
		Department of Cooperatives and SMEs of the Special Region of Yogyakarta (Diskop UKM DIY)	<i>Bidang Layanan Kewirausahaan</i> KUMKM through <i>Seksi Kewirausahaan Baru</i> KUMKM acts as initiator and supervisor of the activity on <i>Desa-Preneur</i> Program.
2	Direct Engagement	Sidoarum Village Government	The Ulu-Ulu (Head of the section in charge of Welfare) and <i>Kamituwa</i> (Head of the Service Section) act as supervisors whose job is to coordinate and initiate the implementation of the <i>Desa-Preneur</i> Program in the village between community and Sidoarum Village Government. The <i>Lurah</i> (village chief) has the role of protecting the <i>Desa-Preneur</i> in carrying out activities and in the interaction of the <i>Desa-Preneur</i> with external village actors.
		Sidoarum MSMEs Facilitator	CV Satoeasa Untuk Indonesia acts as a partner to manage the <i>Desa-Preneur</i> Program in Sidoarum Village and to provide and deliver material about SME's empowerment.
		<i>Desa-Preneur</i> Sidoarum Management	<i>Desa-Preneur</i> management institution which is approved by the Village Government and acts as an administrator and a liaison between community, MSMEs Facilitator and Sidoarum Village Government.
		Sidoarum MSMEs	MSMEs actors which have successfully developed their business by utilizing digital platforms for their marketing. Participants in <i>Desa-Preneur</i> Program in Sidoarum Village are dominated by culinary sector. The selected informants are active participants in the training and mentoring activities.

Sources of data used primary data obtained from in-depth interviews and direct observation, and secondary data collected through documentation and literature. The next procedure is to collect data, analyze and interpret data, and present the results

of the research. Data analysis was carried out inductively and bottom-up where the specific data has been identified into a general theme so that it is meaningful and easy to understand. Creswell (2010) stated that data analysis in this study was carried

out through processing and preparing data for analysis, reading the entire data, detail analyzing by coding the data, representing data descriptions into narrative qualitative reports, and interpret the data by taking the lesson learned from the research results.

Testing the validity of the data was carried out by triangulation of data collection methods including in-depth interviews combined with the results of direct observations and documentation study. Triangulation of data sources was also carried out by gathering information from several informants with the aim of cross-checking the same data for each actor.

## **Results and Discussion**

### *Desa-Preneur Program Implementation*

The *Desa-Preneur* Program exists as a response to economic development which is mostly concentrated in urban areas. Hundreds of villages in remote areas of DIY considered to have the potential to develop, but this potency has not been utilized optimally. Until 2022, Diskop UKM DIY has supported 51 *Desa Preneur* so it requires cooperation with other actors to do the program.

Based on the results, *Desa-Preneur* Program in Sidoarum Village was implemented since September 17, 2021. Starting from the existence of *Kopi Kethip* located in *Padukuhan* Sebaran which is managed by the community become a great potential for Sidoarum Village development. The *Angkringan Kopi Kethip* inspired Sidoarum people to have their own businesses. Due to the development in the number of MSMEs in this area, Sidoarum Village was chosen as *Desa-Preneur*.

Based on technical Guidelines for *Desa-Preneur* Development, there are five stages which can be explained as follows.

1. The Embryo/Growth Stage (0/1<sup>st</sup> year) is the stage of introduction and deepening of village potency by carried out through identification and mapping of regional potency. This stage can be carried out by regional government in the field of MSMEs empowerment at the district/city/provincial level. At this stage, the dynamics of entrepreneurial governance socialization is carried out. In the early year of implementation, it is expected that business potency and management has been identified.
2. Development Stage (2<sup>nd</sup> year) is the stage of business development through effective marketing management and business strategy.
3. Advanced Stage (3<sup>rd</sup> year) is oriented towards business promotion and network/partnership expansion.
4. The Release Stage (4<sup>th</sup> and 5<sup>th</sup> year) is the stage with no intervention at all.
5. The Evaluation/Coaching Stage (5<sup>th</sup>/6<sup>th</sup> year) is an evaluation stage of the implementation after receiving the advanced title, taking into account whether the status of the stages is stable in the forward direction or vice versa.

During the research, *Desa-Preneur* Program in *Kalurahan* Sidoarum has entered its second year, that is at the development stage. *Desa-Preneur* Sidoarum uses *BLANGKON* approach developed by Satoeasa. The approach was chosen because the concept is easy to apply. It starts with a concept and then lowered it into indicators which will be achieved at each stage.



Picture 4. The BLANGKON Approach

Communal MSMEs empowerment is important to do as one of the aspects of the *BLANGKON* approach. The implementation of the *Desa-Preneur* Program requires strong collaboration with the Sidoarum Village Government as a program leader close to MSMEs actors as the target of this program. This collaboration is realized through a coordination mechanism on every activity.

The implementation of the *Desa-Preneur* Sidoarum is carried out through two financing schemes as follows. The first one is the Regional Revenues and Expenditures Budget through Diskop UKM DIY in the form of mentoring operational funds. The second one is and *Dana Keistimewaan* (Special Grant) in the form of *Bantuan Keuangan Khusus Rintisan-Preneur* (BKK Rintisan Preneur) (Special Financial Assistance for-Preneur Initiations).

*Desa-Preneur* Sidoarum chosen as the recipient of BKK Rintisan -Preneur because the increase of MSMEs number shows that there is already an idea to be independent in improving community welfare. BKK Rintisan Preneur is a supporting fund to strengthen the *Desa-Preneur* Program. BKK Rintisan

Preneur handed by *Paniradya Kaistimewan* to the beneficiary village.

This fund is used to assist facilities in order to improve the development of MSMEs in accordance with the needs and potential of the villages. Village government submit a fund proposal to Diskop UKM DIY as a program agency of *Desa-Preneur* and *Paniradya Kaistimewan* as funds organizer. *Desa-Preneur* Sidoarum has utilized BKK Rintisan Preneur funds to provide a product photo studio and create a village website as a promotional tool for MSMEs.

#### *Collaboration Process*

In the term of collaborative governance process, at the beginning of the program, there was still an assumption that the village government was an independent institution with full authority to run the program. In fact, the implementation of the *Desa-Preneur* Program requires the role of other stakeholders, such as MSMEs facilitators and *Desa-Preneur* Sidoarum Management. Face-to-face dialogue which has been carried out by stakeholders can fade stereotypes.

Based on the interview results, stereotyping between the Sidoarum Village Government and *Desa-Preneur* Sidoarum Management formed at the beginning because at the first they did not know each other.

The use of the Whatsapp group is seen as a fairly effective communication medium because messages are sent faster to many stakeholders. The fast of mentoring implementation which held once a week requires Satoeasa and the *Desa-Preneur* Management to report the results quickly to the Sidoarum Village Government.

Based on the research, dialogue has been carried out from program socialization, implementation to evaluation. Communication between MSMEs facilitators, *Desa-Preneur* Sidoarum Management and Sidoarum MSMEs actors has been carried out both offline and online.

The implementation of the *Desa-Preneur* Program in the Sidoarum Village began with trust from the Diskop UKM DIY by appointing Satoeasa as an MSMEs facilitator. Diskop UKM DIY fully trusts the MSMEs facilitators in determining the mentoring materials to be delivered during the program implementation. This trust arises as a result of the interactions which have been carried out when determining the *BLANGKON* as an approach. Diskop UKM DIY as the leading sector for the *Desa-Preneur* Program has confidence in the Sidoarum Village Government to take advantage of this program. The Sidoarum Village Government considers that the *Desa-Preneur* Program is the right program to implement.

At the beginning, the Sidoarum Village Government did not have trust in the elected chairman and secretary of the *Desa-Preneur* Sidoarum Management because of the intensive communication, trust began to build. Intense face-to-face dialogue results in identification of shared needs. Based on the results, it can be concluded that stakeholders must show good performance according to their role to encourage mutual

trust and belief that all stakeholders have the appropriate capacity in carrying out their duties to implement the program. The MSMEs facilitators, the chairman and secretary of the *Desa-Preneur* Sidoarum Management, have carried out this program according to their portions. Based on these, they gain the trust of the Sidoarum Village Government and Diskop UKM DIY as executors of the program.

Commitment to the collaboration process can be interpreted as a form of agreement between stakeholders in achieving the targets of the *Desa-Preneur* Program. The program implemented in the Sidoarum Village is a form of Diskop UKM DIY's commitment to its duties and functions to realize an innovative village through the utilization of all the resources by involving the active participation of the residents in the implementation of community empowerment. Diskop UKM DIY has a good commitment to implementing the *Desa-Preneur* Program in Sidoarum by quick respond in coordinating planning activity and the use of funds.

#### *Achievements of the Program*

The main objectives to be achieved through the *Desa-Preneur* Program in Sidoarum are to improve the welfare of the village community through developing economic business potency, increasing the entrepreneurial spirit and quality of human resources for MSMEs actors, reducing poverty and reducing unemployment through sustainable productive economic empowerment.

The *Desa-Preneur* Program in Sidoarum Village had entered its second year. The results of the *Desa-Preneur* Program in the first and second year were not optimal. The first year/growth stage has the aim of identifying local wisdom which can be accepted as a global value and developed as a product prototype either in the form of goods or services. The second stage, the *Desa-Preneur* Program has the goal of developing

and realizing a product prototype into a local supply chain-oriented product. Based on the *BLANGKON* approach roadmap, the interim results obtained from the collaboration in this program include as the following.

a. *Desa-Preneur* Potency Development Study

This is an initial stage carried out by the Diskop UKM DIY before determine the *Desa-Preneur* candidate by identifying the local potency of the village which could be developed and the utilization of the potential which was still being used in a small scope (hamlet/village). Based on this local potency, it is necessary to carry out further studies in order to develop a development plan for the *Desa-Preneur* stages.

Geographically, the Sidoarum Village area is a part the Kontheng and Bedog River Watersheds, which originate on the slopes of Mount Merapi into the Progo River. However, the potency of this watershed has not been used optimally by the people of Sidoarum. They found difficulties in finding a *tilapia* as raw material.

Identification of local potency in the Sidoarum Village which can be developed as a superior MSMEs product is still facing the problems. Based on the observations, the Sidoarum Village area is on the border between the village and the city, so it has the character of a community with a sub-urban lifestyle. Sub-urban communities are people who live in sub-urban areas. Sub-urban areas are defined as transitional areas between rural and urban communities (Hidayah, 2021).

The pop culture carried out by the Sidoarum Village as a superior potency for the village, such as *Angkringan Kopi Kethip*, several tourist attractions and culinary centers is a reflection of lifestyle of the people in Sidoarum. The people of Sidoarum Village have a sub-urban

lifestyle, but their administrative area is the village. This is also an obstacle in identifying the real potency of the Sidoarum Village as a superior MSMEs product. The difficulty in determining the real potency of the village due to a discrepancy between the existing potential product and the people's business ideas/desires.

b. *Desa-Preneur* Socialization

The initial stage carried out by the Diskop UKM DIY was conducted socialization to explain the intent and purpose of this program to the community and village government. The socialization of the *Desa-Preneur* Program in the Sidoarum Village was carried out by inviting representatives from MSMEs centers, institutions engaged in MSMEs marketing and community leaders. Socialization also carried out as a means to encourage the enthusiasm of MSMEs actors by explaining the benefits of participating in these activities.

Collaboration with the village government needs to be carried out through intense communication. The weakness of intense face-to-face communication, it takes a long time. Based on the results of the research, the socialization stages of the *Desa-Preneur* Program in the Sidoarum Village show that socialization is an important phase in fostering a shared understanding. The socialization of the program has been carried out directly by Diskop UKM DIY. This socialization was not only carried out as an effort to provide an understanding of the program, but also to provide motivation for all stakeholders.

c. Capacity Building and Mentoring

The capacity building stage is needed to achieve success indicators for the development of *Desa-Preneur*. Capacity building at the growth stage

has a focus on strengthening products, business models and the basic of digital marketing. Mentoring is carried out to strengthen the capacity of participants after capacity building in class.

At the growth stage, MSMEs actors understood the standard of product packaging procedures. MSMEs actors are starting to pay attention to packaging standards according to security procedures, especially those related to food products. This is important to increase public trust in the products offered. In addition, the MSMEs actors in *Desa-Preneur Sidoarum* started to have a business model. The establishment of this business model indicated by a well-thought-out plan for managing the business. The formation of this business model is the way to achieve the business targets.

In the basic of digital marketing material, participants have explored social media, especially Instagram, to expand product marketing. To take a step in digital marketing products, they have to pay attention to their e-mail. Initially, the participants already had e-mails, but they were no attention to the importance of taking care of e-mails, such as forgot the password, the number for authentication has not been updated, and forgot the e-mail account name.

Furthermore, participants began to maximize the use of Whatsapp business to support sales and communicate with consumers more effectively. Initially, the participants did not have a mature concept in managing their Whatsapp business. The use of Whatsapp business and Instagram, sales of MSME products can be expanded broadly. The use of social media by mentoring participants has been equipped with product photos consider the angle, light, background and quality of the photos. Social media profiles have been equipped with a logo.

In the second year, capacity building at the development stage focuses on increasing product standardization, financial management, branding and advanced digital marketing. At this stage, MSMEs actors stated that they could expand the network, a lot of knowledge was gained about brands, Halal, Intellectual Property Rights (HAKI/*Hak Kekayaan Intelektual*), Business Identification Numbers (NIB/*Nomor Induk Berusaha*), Home Industry Food Production Certificates (SPP-PIRT/*Sertifikat Produksi Pangan Industri Rumah Tangga*) after attending the mentoring.

The implementation of the *Desa-Preneur Program* in the Sidoarum Village had an impact on the development of knowledge for Sidoarum MSMEs actors. The MSMEs actors already have knowledge in accordance with the material being taught. Several indicators have been met, but consistency is needed in the implementation of the learning outcomes.

At the development stage, there is a BKK Rintisan Preneur as supporting funds for the *Desa-Preneur Program*, so that the Sidoarum Village had facilities in the form of a website which could be used as media for promoting MSMEs product. The infrastructure obtained is a product photo studio which can support content on website and social media for the product promotion.

d. Monitoring and Evaluation of the Program

Monitoring and evaluation is carried out to find out the achievements of the *Desa-Preneur* in the growth and development stage. At this stage, relevant stakeholders evaluate both offline and online. Routine monitoring and evaluation once a month began when the *Desa-Preneur Program* entered its second year by asking for

various reports regarding the progress of the implementation of the program and the use of the BKK Rintisan Preneur fund.

Focus Group Discussion (FGD) held regularly once a year is an evaluation tool attended by representatives of members of the *Desa-Preneur* through *BLANGKON* approach, Diskop UKM DIY and MSMEs facilitators. The FGD was conducted to discuss the achievements of the program which had been implemented, identify obstacles and jointly find solutions to these problems. The monitoring and evaluation mechanism by *Paniradya Kaistimewan* carried out periodically. In connection with assisting the implementation of the Preneur's BKK pilot, *Paniradya Kaistimewan* conducts online monitoring by discussing activity reports accompanied by photos/videos as evidence.

In general, there is already a periodic evaluation and monitoring mechanism carried out by Diskop UKM DIY and *Paniradya Kaistimewan*. Obstacles encountered during evaluation and monitoring were regarding target expectations with the reality of program implementation. Intense face-to-face dialogue is used for stakeholders to communicate obstacles. Based on the research results, communication between stakeholders is the main key as a collaborative-problems solving. This intense communication also needs to be supported by showing physical evidence of the program implementation in order to increase stakeholder trust.

### *Constrains and Challenges*

In term of face-to-face dialogue, the obstacle is that information regarding the existence of BKK Rintisan Preneur funds in the Sidoarum Village as a supporting fund for the

implementation of the program has not been socialized to all MSMEs actors in Sidoarum.

Communication which has been established between stakeholders regarding the implementation of the use of BKK Rintisan Preneur funds has not been fully open to all MSMEs actors. There is no official forum to socialize and discuss the use of BKK Rintisan Preneur funds.

Based on the data, the researchers assessed that commitment to the collaboration process can be seen from the participation and contribution of each stakeholder in the collaboration. During the implementation of the *Desa-Preneur* Program in the Sidoarum Village, Sidoarum MSMEs have not yet been consolidated in an institution such as cooperatives and BUMDes which can encourage the development of their product marketing.

Not all the members of *Desa-Preneur* Sidoarum Management have a commitment to the process of collaboration. The participants of the program dominated by micro-scale MSMEs and this program has not fully targeted to all Sidoarum MSMEs scales because not all MSMEs actors participate routinely in the mentoring of the program.

Based on this, it is necessary to involve the Sidoarum Village Government as a stakeholder who has the authority to regulate and manage the interests of the community. The Sidoarum Village Government act as a driving force for the initiative of local MSMEs to collaborate.

Shared understanding influences the mindset of stakeholders. If all stakeholders have the same mindset regarding to the program implementation, it will make it easier to achieve program targets. Shared understanding of the MSMEs actors has not been fully realized because there is still dualism between the *Desa-Preneur* Sidoarum Management and the Sidoarum MSMEs Communication Forum (*Forkom* UMKM Sidoarum) which actually have the same goal of empowering MSMEs. There

is no mutual agreement regarding to the material and coaching model in MSMEs empowerment in Sidoarum where the Head of *Forkom* considers that the mentoring scheme in the *Desa-Preneur Program* is still too difficult to realize.

Cooperatives have not yet been formed and BUMDes is not yet running in the Sidoarum Village. This problem indicating that a common understanding has not been reached regarding to the importance of forming cooperatives and BUMDes for the development of their businesses. BUMDES in Sidoarum already exists, but is not running well due to the absence of a joint agreement regarding the vision and mission of BUMDes.

The starting conditions is a factor in each stakeholder before the collaboration cycle runs. It can affect the course of future collaboration as an obstacle or a support for collaboration. The facilities and infrastructure provided by the Sidoarum Village Government need to be maximized in their function to support the implementation of the program. The wish of MSMEs actors to have a showroom provided for them actually could be realized because the Sidoarum Village Government has shop building which can be utilized. The addition of wi-fi devices, laptops and LCD projectors to support the empowerment of MSMEs also needs to be provided.

Marketing is still the main problem for Sidoarum MSMEs. Marketing is not about to expand the reach of product sales, but also relates to the production. Products can be accepted on the market when their legality is complete. The legality consists of administrative permits include NPWP, NIB, SIUP, Brand HKI and distribution permits granted for consumer products or direct use which consist of PIRT, Halal Certificate and BPOM. Based on this, it is important for government to organize training and assistance for MSMEs. On the MSMEs side, there is still limited access to knowledge regarding effective marketing methods, so

it is necessary to do the digital marketing assistance.

Fund budgeted for mentoring needs to be re-budgeted to provide sufficient funding for 16 times of mentoring. According to the management of *Desa-Preneur Sidoarum*, BKK Rintisan Preneur considered to be in accordance with the needs of various activities in this program.

The results of the study also show that there are already technical guidelines for the *Desa-Preneur Program* as outlined in the Regulation of Governor of Special Region of Yogyakarta Number 20 of 2022 concerning Technical Guidelines for *Desa-Preneur Development*. Government stakeholders already have clear coordination relationships in the implementation of the program as outlined in the Regulation of Governor of Special Region of Yogyakarta Number 100 of 2020 concerning Guidelines for the Implementation of *Dana Keistimewaan* (Special Grants) for Privilege Funds for the Village Government.

There are still obstacles in the implementation of Regulation of Governor of Special Region of Yogyakarta Number 20 of 2022 concerning Technical Guidelines for *Desa-Preneur Development* that the composition of the *Desa-Preneur Management* consists of:

1. Protector is held by *lurah* has the function of protecting the activity of *Desa-Preneur* and in the interaction with external actors;
2. The supervision is held by the head of the TP PKK, *Ulu-Ulu* (Section Head in charge of Welfare) and *Kamituwa* (Head of Service Section) as the driving force for the *Desa-Preneur* organization, as a place to ask, coordinate, as program development initiators;
3. The chairman is in charge of leading the *Desa-Preneur* organization. The functions of Chairperson and the Secretary as a formatter to form the complete *Desa-Preneur* management.

The chairman is in charge of preparing work and budget plans and submit a written accountability reports to all members;

4. The secretary is in charge of carrying out administrative governance, conducting and archiving the minutes and activities of the *Desa-Preneur*.
5. The treasurer carries out financial governance, verifies and archives evidence of incoming and outgoing cash flows;
6. The fields are the core executors and institutional coordinators formed in villages consist of Production Sector, Marketing Sector, HR Sector, Digital Marketing Sector, Institutional Sector and Finance Sector;
7. The Special Committee is the executor of *Desa-Preneur* activities which is formed as needed.

In the *Desa-Preneur* Sidoarum Management, the position of the supervisor is only held by *Ulu-Ulu*. The number of MSMEs empowerment programs initiated by the local government has had an impact on the Sidoarum Village Government in implementing these programs. The implementation of programs which have the same objectives have not been well integrated and there are still sectoral egos so that the Sidoarum Village Government has not been able to manage them optimally.

The chairman and secretary of the *Desa-Preneur* Sidoarum Management have carried out their duties according to their capacity exceeding the tasks and functions listed in the technical instructions. This is because the position of treasurer and 6 fields did not work. The implementation of the *Desa-Preneur* Program has not been maximized due to the limited number of personnel.

The non-government stakeholders, Satoeasa and the *Desa-Preneur* Sidoarum Management, are assigned based on an appointment decree which has not been

accompanied by a description of the duties, functions and authorities. Based on the Decree of the Head of the Department of Cooperative and SMEs of Special Region of Yogyakarta Number 089/Kep/BIDIV/III/2021 concerning Expert *Desa-Preneur* Assistants, the Department of Cooperative and SMEs of Special Region of Yogyakarta recruited Satoeasa as a partner to manage the *Desa-Preneur* Program in Sidoarum Village. Satoeasa as an expert in developing the concept of MSMEs empowerment as well as a facilitator for assisting MSMEs. In the coordination between Satoeasa and the Department of Cooperative and SMEs of Special Region of Yogyakarta, there were no written standard operating procedures (SOP) for program implementation.

The elaboration of duties, functions and authorities in the attachment to the appointment decree of MSMEs facilitators, *Desa-Preneur* Sidoarum Management and the establishment of an MSME product marketing agency needs to be done. SOP elaboration is an important factor as legitimacy in the collaboration process. This is due to appropriate workflow and distribution of roles can be realized so that available resources can be optimally utilized for the benefit of MSMEs empowerment.

There were still problems with the completion of the program. Mentoring is carried out by starting with socialization which is not easy, so that the completion of the program is not in accordance with the government's schedule. Further evaluation regarding the technical implementation of the program needs to be done in accordance with the conditions of the village location, the community and the village apparatus.

The researcher considers that each leader from Sidoarum Village Government, Satoeasa and the *Desa-Preneur* Sidoarum Management has facilitative leadership. This leadership manifested by providing opportunities for followers to participate in the program. The leader of each stakeholder

can act as a mediator in conflict and always strives to manage well collaboration process.

On the other hand, the researcher concludes that *lurah* still acts as program leader only administratively because *lurah* did not intervene in the substance of MSMEs training and mentoring. The village government is a stakeholder who has the most powerful resources because they have the power and authority in managing the community. According to the Regulation of the Governor of Special Region of Yogyakarta Number 2 of 2020 concerning Guidelines for Village Administration, villages government have authority in the field of community empowerment based on community initiatives, origin rights, customs and local wisdom values.

One of the powers of the village government is the authority to regulate and manage the interests of the village community, authority which effectively can be carried out by the village government, or authority which arises because of the development of the village and community initiatives. Based on this elaboration, the *lurah* can further intervene in the implementation of the *Desa-Preneur Program* as long as it is guided by the goal of welfare for the community.

## **Conclusions**

Sidoarum has good MSMEs potency, but the economic empowerment of a village cannot be realized from one success MSME. MSMEs empowerment is all efforts to make the prominent MSMEs actors become a multiplier effect to other MSMEs actors so that collaborative MSMEs empowerment is important to implement. However, the research results show that collaborative governance indicators in *Desa-Preneur Sidoarum* have not been fully implemented. In terms of collaboration, there are several recommendations for improving the implementation of the *Desa-Preneur*

*Program*, especially in Sidoarum Village and all districts in DIY.

The village government needs to play an active role in the implementation of *Desa-Preneur Program* because the important thing in collaboration lies in bridging between the Provincial Government through Diskop UKM DIY and the community as MSME actors. It must be done so that the policies which have been taken by the government can be implemented to benefit community as a target group. *Lurah* as a leader can stand alone, but each leader within a stakeholder has limited authority according to their capacities. The implementation of the *Desa-Preneur Program* can work properly if all stakeholders collaborate with each other.

In an effort to expand market reach, the thing which can be done is to expand the network. Based on this, the *Desa-Preneur Program* cannot stand alone, but must synergize with other programs supporting the realization of *Desa Mandiri Budaya*, that is *Desa Prima*, *Desa Budaya* and *Desa Wisata* which participate in supporting the development of MSMEs in the local area. This effort requires local actors who are ready to collaborate not only on the internal implementation of the program, but also with other supporting programs. This is form of optimizing existing resources so that it can be a solution to limited human resources, budget and infrastructure in the implementation of MSMEs empowerment.

The appointment decree for MSMEs facilitators and *Desa-Preneur Administrators* should be equipped with attachments of duties, functions and authorities in order to create clarity on the limits of the roles of each stakeholder. In addition, the appointment decree should be equipped with a collaboration period that can be extended periodically as legitimacy in the implementation of collaboration.

Institutional strengthening as one of the stage indicators in the *Desa-Preneur Program* is important to realize because

in the third year, the target to be achieved is to strengthen market access. In efforts to expand market access for MSMEs, the role of village economic institutions such as BUMDes and Cooperatives is needed as well as the participation of all members of the *Desa-Preneur Sidoarum Management* to manage collaboration between Sidoarum MSMEs actors.

The implementation of the *Desa-Preneur Program* at the village level needs to involve Diskop UKM of Sleman Regency and the Godean Sub-District Government in the implementation of training and mentoring activities so that the coordination range is not too wide.

In efforts to implement training and mentoring for Sidoarum MSMEs, especially to increase the capacity of MSME actors in terms of digital marketing, it is necessary to collaborate with the government in the field of communication and informatics and related government agencies in the field of trade and industry.

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## **School Information System Innovation by Eduversal through Edunav Implementation in Indonesia: A Case Study at SMP-SMA Kesatuan Bangsa Bilingual Boarding School Yogyakarta**

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### **Abstract**

Technological innovation is a science which will continue to develop over time, therefore knowledge, skills, and understanding are needed in life, especially in educational institutions. Many researchers have conducted studies on educational system innovations because the implementation of information systems in educational institutions has made a positive contribution to education management. The existence of an educational information system provides convenience in communicating, exchanging information quickly and accurately, as well as an increase in educational services. This research is based on the implementation of the Edunav Information System as an information system innovation which is applied to educational institutions. Edunav is an application for student progress reports in learning in the form of e-reports. The form of the reported activity from the learning process includes attendance, homework, quizzes, unit tests and so on. This study aims to uncover the factors which drive the Edunav Information System to be implemented and the benefits derived from it at the SMP-SMA Kesatuan Bangsa Bilingual Boarding School Yogyakarta. The method used in this research is a qualitative research method with a case study approach. The data of this research are obtained from in-depth interviews, observation, and literature study. In-depth interviews were conducted with several informants by means of a snowball. The results of this study show that there are several factors which encourage the implementation of the Edunav Information System at the Kesatuan Bangsa School, which are 1) complex problems occur in the field as there is no integrated system; 2) manual data processing which is recorded in books; 3) the existence of school initiatives to make changes from conventional to digital schools by increasing the use of information technology; 4) increasing competitiveness among schools is significant, especially for private schools. The perceived benefits of the Edunav Information System are 1) as an information system for schools, parents, and students; 2) as a media to support education; 3) as a means of control for schools, parents and students.

**Keywords:** educational innovation; information system; Edunav Information System

## **Introduction**

National development as a whole is an important and fundamental issue in relation to education. Education as a process of cultural transformation is actually a place for change and the dynamics of the culture of society and the nation. Therefore, education provided through guidance, teaching and training must be able to meet the demands of developing the potential of students to the fullest, both intellectual, spiritual, social, moral, and aesthetic potential so that full maturity or personality is formed (Syafaruddin, et.al., 2012: 1). Education is an activity which is carried out intentionally and planned through a process of guidance activities, guidance to children so that they have intelligence, emotional and spiritual intelligence and become human beings in life and later life (Ananda and Amiruddin, 2017: 4) . The current era of globalization has brought major changes which demand continuous improvement and development of the education system, especially educational institutions. If one wishes to keep up with the times, it is necessary to change or innovate in order to maintain existence with other educational institutions. Regarding innovation, Pervaiz and Charles D. say that innovation is not limited to objects or goods produced, but also includes attitudes to life, behavior, or movements towards a process of change in all forms of community life (Wijaya, et.al, 2019: 219). The Ministry of Education and Culture stated the same thing that innovation is an introduction to new things, new discoveries from things which already exist or are known previously in the form of ideas for methods and tools, input, or renewal (Meidawati, 2019:17-18). Everett M. Rogers cited in Ananda and Amiruddin (2017:1) suggests that innovation is a series of new ideas, practices, or projects which are interrelated with individual units with one another in which there is an adoption process.

The existence of innovation in the world of education is very necessary, with innovation in the world of education is one way in the framework of developing the quality of education itself (Subadi, 2011). As emphasized by Syafaruddin, et.al. (2012: 4), the existence of educational innovation is a necessity to answer the needs of the internal environment and to answer the external needs of the national education world, so that the implemented national education system can create a new cultural order for the nation which is smarter, advanced and prosperous. Rusdiana (2014: 46) states that educational innovation is an innovation to solve educational problems, in this case it does not only cover the level of educational institutions in a narrow sense, but also the national education system in a broad sense.

Currently, education managers must change the paradigm of managing the education system. The development of science and technology also demands an educational process which is relevant to the current 4.0 industrial revolution. The optimal use of technology as an educational tool is expected to produce output which can keep up with or change the times. As explained by Jaultop (in Fitria, et.al., 2021: 1), in this era of globalization, one can be called clueless or even illiterate if one does not master the development of information technology. Hitt explained that technology brings big and promising changes which are so broad so that universities cannot separate plans strategic, goals, and activities from data initiatives, resources, and administration (Kryukov and Gorin, 2017). According to Schneckenberg (2009: 412), there have been many studies showing that advances in Information and Communication Technology (ICT) can be used to realize innovative educational concepts in building platforms for learning activities. In situations like this, educational institutions must prepare a learning orientation with models of learning literacy and systems used in new educational

institutions by utilizing digital technology. Therefore, old literacy which is based on reading, writing, and arithmetic must be strengthened by growing new literacy, specifically data literacy, technology, and human resources; data literacy is the ability to read, analyze, and use information from data in the digital world, then technological literacy is the ability to understand mechanical systems and technology in the world of work (Hermann, Pentek and Otto, 2015).

Facing the era of the Industrial Revolution 4.0, education is needed in order to form a creative, innovative and globally competitive generation. The development of science and technology is also the demand for an educational process which is relevant to the current industrial revolution 4.0, the optimal use of technology as an educational aid, is expected to produce output which can follow or change the times. Tondelur, et.al. in Selwyn (2011) quoted by Lestari (2018: 95) stated that digital technology has now begun to be used in educational institutions as a means of supporting learning, both as a means of information and as a learning tool. Kristiawan, et.al. (Emalia & Farida, 2019: 161) asserted that reforms or innovations which must be carried out to improve the quality of education services in Indonesia would include the development of technology used in the education process, the education system applied, even innovations which are directly related to education. The same case is also implied in e-government in government organizations which are used as a medium of information and services to the public. There is an e-office for correspondence; a Population Administration Information System (SIK); a Labor Management Information System (SIMNAKER); and many others. Likewise, the world of education continues to experience developments in technological innovation, such as Zoom-meets which are used as distance learning spaces; Google Class Room which is used as an information medium for delivering

assignments and learning materials; and others. Seeing this statement here, it can be indicated that digital innovation in the world of education is expected to be able to reduce or solve problems in education, then can improve the quality of education services in Indonesia and simplify and accelerate all forms of activities which exist in educational institutions.

In improving the quality of education services in Indonesia, the Eduversal Foundation has created an innovative School Information System (SIS) based on a website and application under the name of Edunav. Edunav is used in each school as a medium of information in supporting school activities, both for the educational institution itself and outside parties, such as parents and students. Edunav is a new breakthrough in improving service quality in education management. With the existence of Edunav, it is easier for schools to provide information, select and process data until it reaches the students and parents. However, in implementing an information system in educational institutions, it is adjusted to the most important problems in the field. There are several problems which are often faced by schools in implementing education management control in schools running the wheels of management, as revealed by Lestari (2017: 62) that one of the serious problems in improving the quality of education in Indonesia is the low quality of education services in various areas level of education both formal and informal education. Then Ibrahim, RMS (Rusdiana & Moch. Irfan, 2014; Rusdiana, 2019) added that several problems also included: (1) educational services to students were less than optimal; (2) the absence of collaboration facilitating the coordination; (3) unsustainable accountability; and (4) the provision of information is not fast and effective.

Therefore, Kesatuan Bangsa School has implemented innovations initiated by Eduversal as one of the educational information system innovations in supporting

administrative activities, services and learning processes in schools. On the other hand, the Kesatuan Bangsa School is a boarding school where some of the children stay at the school during the learning process. This encourages the school to provide quality services to parents and gain their trust. This will also have an impact on maintaining the existence of the school so that it can compete with other schools. So schools must implement an information system which can be accessed by parents to control their children while participating in the learning process at school. Then Kesatuan Bangsa School is also the first school among partners to implement the pilot project "Technology in Classroom" where the school tries to modify learning by using technology to support the teaching and learning process. With the encouragement of supporting technology facilities, this is a positive value for schools in implementing information systems. The Kesatuan Bangsa School as a formal educational institution, through the application of a management information system, is willing to interpret, define and implement an educational model according to their own expectations by following the times. Based on the above background, this research will explain about the implementation and the benefits of Edunav Information System in Kesatuan Bangsa Junior and High Schools.

## **Methods**

The method in this research uses a qualitative method with a case study approach. Hamdi & Ismaryati (2014) argue that the purpose of this research is to describe certain conditions which have been sufficiently developed based on existing theories. Qualitative research is also a means of understanding individual and group meanings related to social problems which occur (Creswell, 2014). Hamdi and Creswell's perspective can provide flexibility for researchers to collect field data based on

existing theories. This research also uses a case study approach where researchers will study cases of implementing the Edunav Information System in Kesatuan Bangsa Schools. Researchers choose case studies because the main research question is related to "How" or "Why". Consistent with Yin & Djauzi Mudzakir (2006), researchers have little opportunity to control the events to be investigated and whether the focus of research is on phenomena that are happening in real life (Yin & Djauzi Mudzakir, 2006). Then Neuman (2014) suggest which the case study method is more effective in describing complex multifactorial events and processes at certain times. This perspective is by this research which wishes to know about the implementation of the Edunav Information System implementation at the Kesatuan Bangsa School in Yogyakarta.

The data and data sources of this research are primary data and secondary data. Primary data is done by selecting informants using the snowball method, where the snowball method is looking for other informants based on recommendations from informants who were previously considered to have sufficient information to answer research questions. Secondary data is obtained from documents/literature which are relevant to the research focus taken.

As for the data collection techniques in this study, researchers will use the Neuman (2014) approach including interviews, observation, and document.

1. Interviews were conducted in-depth with key informants, which is school operators and school principals. Previously, interview guidelines had been prepared as a form of question and answer to obtain information from informants. The interview process was carried out face-to-face directly with the school which implemented the Edunav Information System, and using Zoom-meet media with several informants who did not allow face-to-face meetings.

During the interviews, the researchers would maintain health protocols due to the Covid-19 pandemic. During the interview process, the researcher recorded the results of the interviews and then transformed them into the form of interview transcripts from each informant. The transcripts are used by researchers to help process data processing.

2. Observation. The researcher's observation technique begins with direct observation in the field to observe the benefits of the process of using the Edunav Information System. Then the obstacles encountered in using Edunav in Kesatuan Bangsa Schools.
3. Documents (literature study). The document technique was carried out indirectly by the researcher by collecting and reviewing websites, journals and books obtained by the researcher regarding the use of Edunav.

The data analysis technique used in this research from the Miles (2014) model can go through three processes, that is data reduction; data presentation; and conclusion. After the data is completely collected, the researcher will first verify the data from interviews, observations and documents to find out why Kesatuan Bangsa School implements the Edunav Information System and the benefits obtained for the school, students and parents. The two researchers will analyze and compare these data to produce research finding. Then from these findings, researchers will conclude the research conducted.

Testing the validity of the data was also carried out in this study, using the data triangulation method. Triangulation of data used in this study is using source triangulation in which there are three sources of informants in this study, that is the school, students, and parents. Besides from that, triangulation techniques are also used, which

are based on data sources in data collection techniques (Sugiyono, 2018; Please, 2012).

## **Research Context**

The administrative processing and school data to become the required information will be explained comprehensively. Administrative processing and school data will involve the Edunav Information System. In this chapter, the researcher discusses the relation between the Kesatuan Bangsa School and the Eduversal Foundation, the process and background of the emergence of the Eduversal information system created and developed by Eduversal and then applied to the Kesatuan Bangsa School and other partner schools. This chapter also discusses the state of the Kesatuan Bangsa School which is the research location. The history of the school, the organizational structure of the school and the state of the resources are available in the school.

## **Results and Discussion**

### *Factors Encourage the Implementation of Information Systems*

The existence of the Eduversal Foundation in Indonesia as an educational consultant has had a positive impact on the progress of education in Indonesia. Eduversal or PT Edukasi Universal Indonesia is an educational service provider company which has various programs to improve the quality of education in an institution. Eduversal as a service provider aims to prepare and implement unique and high-quality programs designed to help educational institutions increase detailed individual and comprehensive success. In this case, Eduversal has created several activity products to support and improve the quality of education services in Indonesia, one of which is the presence

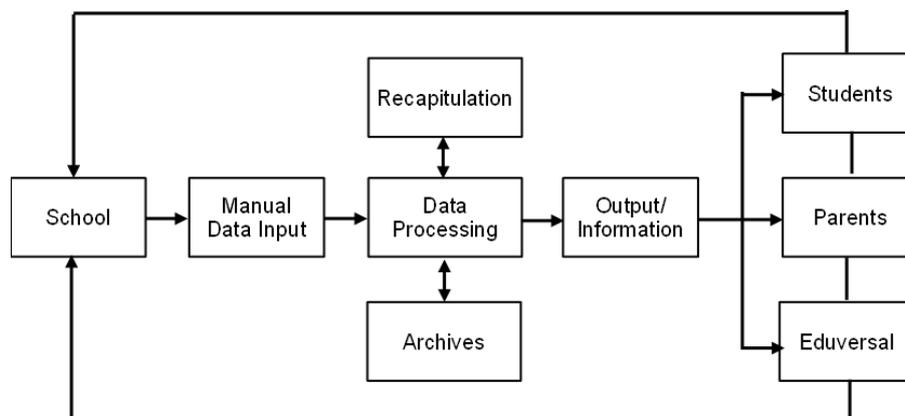
of the Edunav Information System which is implemented in schools which partnered with Eduversal throughout Indonesia, one of which is the Kesatuan Bangsa School. This implementation is due to several supporting factors, such as stated below.

1. Data recording and processing are manual

When it was first established in 2011, the data processing and administration process at the Kesatuan Bangsa School was carried out manually, this was done because the school did not yet have an information technology-based system connected to the internet. In processing the data, everything is done manually because an information technology system has not been implemented to store and process the data. As with student attendance, processing the data is still manual. The teacher will record students' attendance in a separate notebook, so this takes quite a long time. Then the student registration process is carried out manually in writing and reporting to schools and educational foundations, so it will be difficult to find registration files for student data. As well as checking school payments, parents have to contact the school if they need this information. At that time the processing of school documents was still manual, such

as teacher and staff data being recorded in books.

Processing these data results in delays in the delivery of information for both students and parents. These data include recaps of teacher, and student data, parent data, daily test scores, midterm exam scores, final semester exam scores, student attendance recaps, lesson schedules, curriculum data, school payment/financial data and other values related to Non-Academic. Students have to wait for the results of the Mid-Semester Examination and Final Semester Examination in the next few days to find out, because the administration department must first wait for the grades from the subject teachers which will be included in the student's report card, and these grades will also be archived by the academic department. The application of information technology is important for schools, making changes to data processing and information delivery faster. The information system becomes a bridge between interacting schools and providing information to interested parties without interacting directly so that this can speed up the delivery of information widely and variedly. Then, the existence of information technology in educational institutions helps and completes the processing of education management data so that it is better stored in one data.

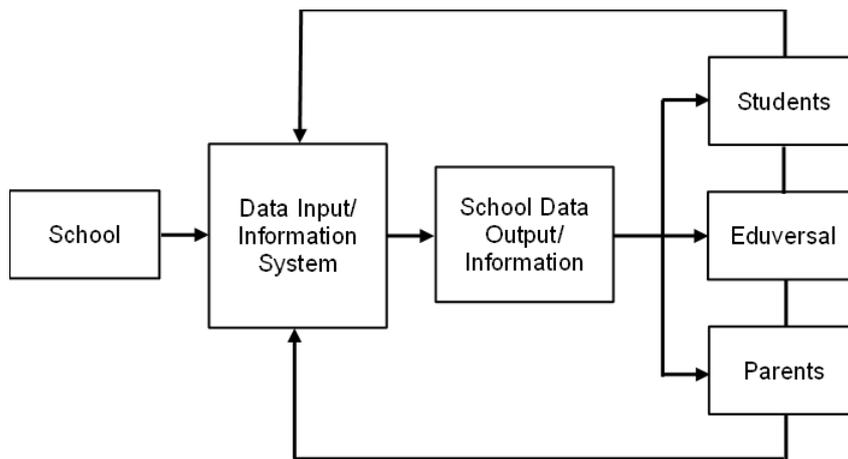


Source: Processed Products Researcher, 2022

**Figure 1.** Flow of Data Processing and Administration Done Manually Before Use System Information

The application of information technology is important for schools, making changes to data processing and delivery of information faster. The information system is a bridge between schools interacting to provide information to interested parties without direct interaction so that this can accelerate

the delivery of information widely and varied. Then, the existence of information technology in educational institutions helps and complements the processing of education management data so that it is better stored in one data.



Source: Processed Products Researcher, 2022

**Figure 2.** The Flow of Data Processing and Administration is Carried Out After the Implementation of the Information System

## 2. School competitiveness demands

Competitiveness in the world of education is increasing and this requires educational institutions to continue to create new things to improve the quality of educational services and be able to compete with other educational institutions. Thus it will increase trust from the general public. Not only this, new ideas can also further improve the quality of education in a country. Along with this, there is also a demand that in meeting the academic needs of schools there must be an information system which can manage school management.

The use of technology in schools is very important to increase competitiveness compared to other schools. Information technology not only expands access to information and knowledge, but also enables

a more interactive, dynamic and relevant learning process for young people who grow up in the digital era. By using digital tools and online learning platforms, schools can offer a more dynamic and relevant education which prepares students for the challenges of a rapidly changing world. In addition, the use of technology can also help measure and improve the quality of learning and enable schools to innovate teaching methods. Therefore, the use of technology in schools not only increases the competence of students, but also enhances the image and attractiveness of schools in the increasingly fierce competition in the education sector.

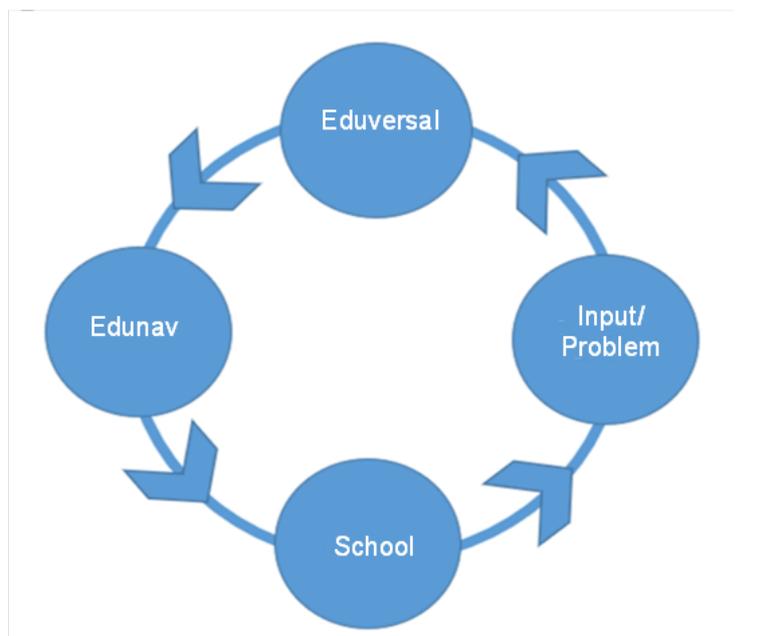
Yogyakarta is known as a city of students with many public and private universities and schools. This causes increasingly fierce competition between one another. Kesatuan Bangsa School is one of the private schools

in Yogyakarta which must be able to compete with other schools in terms of gaining the trust of the community. So that people wish to enrol their children in the school. Its coverage area is not only the city of Yogyakarta, but all cities in Indonesia.

### 3. Increasingly complex school data

The emergence of the Edunav Information System is due to problems which occur in schools. The problems raged from the process of collecting, recording, processing, duplicating, storing and sending until the information is received by decision makers and used as information as needed. For

instance, how many students are present today? How many of them have not paid the tuition fee (SPP)? This is because no system can organize it as a whole due to the absence of integrated system so the school carried it by a manual recording collaboration with the local system available at the school. This is one of particular concern to schools and Eduversals to overcome these problems. Therefore, considering that data must be processed, managed and completed on time, supporting actions are needed to provide maximum output on time. So that the implementation of activities in educational institutions becomes more effective and efficient.



Source: Processed Results Researcher, 2022

**Figure 3.** Creation and Development Process Flow System Information Edunav

### 4. The demands of technological development

The development of science and technology in the current era is the main driving factor in improving the quality of education. Using technology is a must for any institution. Eduversal realized this and created a school information system to assist school

management in processing data, that is Edunav. The application of information technology is important for schools, making changes to data processing and information delivery faster. The information system is a bridge between schools interacting to provide information to interested parties without direct interaction so that this can accelerate the delivery of information widely

and varied. Then, the existence of information technology in educational institutions helps and complements the processing of education management data so that it is better stored in one data. *Edunav* is a cloud-based school management/information system application developed by Eduversal which can help schools to help streamline school management. By using *Edunav*, schools can store data, process and analyze school performance from various aspects to improve the quality of education. Anticipating rapid changes and increasingly complex challenges, there is no other way for an education institution to continue doing everything to improve the quality of educational services. This is also one of the motivations for the Kesatuan Bangsa School to implement the *Edunav Information System*. The school fully supports quality improvement in education by prioritizing technology, by implementing a pilot project called *Technology in Classroom*. This is evidenced by the application of several programs which are applied, one of which is the application of technology in the learning process.

### *Benefits of Implementing Edunav Informations Systems*

#### 1. For School

The presence of an information system in schools has a huge dominant effect on educational management and the importance of an information system as part of the use of technology in education. The presence of information systems in educational institutions provides many useful roles for educational institutions, such as school management, supporting school operational activities, providing transparency in school information, and providing information faster and better. Therefore, the presence of a school information system can be an important part which moves

and supports educational institutions in competing globally. By having a school information system, educational institutions can provide various kinds of information according to school needs. *Edunav* as an information system in the Kesatuan Bangsa School provides benefits in terms of daily data processing needs and supports activities in data processing to become managerial information and other strategic activities. Then *Edunav* developed not only as an information system, but became a *Learning Management System (LMS)* as a distance learning media assisting in the learning process, teaching and learning process, both for teachers and students. With *Edunav*, teachers can upload learning materials, such as learning materials, or learning videos. Then students can actively study the material which has been inputted by the teacher into *Edunav*. Therefore, with the *Edunav Information System*, teachers and students will be better prepared to participate in teaching and learning activities at school.

*Edunav Information System* continues to develop with the addition of new features which can be useful for school institutions. During the COVID-19 pandemic, *Edunav* was very useful for educational institutions, such as in conducting remote learning and exams. Within *Edunav* itself, there is a feature to conduct Mid-Semester Exams and Final Semester Exams online which is equipped with an *on-came camera feature*. When the exam is about to start, students enter the *Edunav system* and then enter latihan. id and enter *the exam code* of the subject being tested. With this, it is easier to control schools and teachers in supervising online exams, teachers monitor and supervise from school while students are in their respective homes. With the existence of an information system, it is expected that schools will have a better system, which can assist schools in conducting school management and assist teachers in learning activities, furthermore,

with a good system, it can educate students to become better individuals who can excel in learning. Not only that, the existence of an information system which is implemented can improve the quality of education itself. Although the parameters of the quality of an educational institution cannot only be seen or assessed from one side, at least a good information system can support and encourage efforts to improve the quality of education. Some of the benefits obtained by school elements are as stated below.

a) Headmaster

The principal is a management regulator who controls school activities. In school management, the existence of Edunav makes it easy for leaders, that is school principals, to carry out good and directed organizational management, make decisions based on data, and carry out checks on certain sections. This makes it easier for school principals to organize employees teachers and other important data. Then about evaluating the performance of teachers, admin and staff, the principal can easily control the performance of admin and all staff in the school, for example in terms of attendance, administrative completeness, and performance by the main tasks and functions of each. Because in this case, the school principal can see existing data stored in the Edunav Information System.

Furthermore, the school principal can see and control the performance of the students. *Edunav* itself makes it easy for the school principal to see and control the performance and development of all students in the school. For example, those related to

academics, such as subject grades. The principal can also directly check the grades of the students in each lesson, therefore the principal can know the progress of students' progress in participating in learning at school. Therefore the presence of the Edunav Information System is of great benefit to school principals in terms of managing activities at school.

b) Academic section

Academic activity is the most important activity in the world of education. Therefore it must be regulated in detail and directed in terms of achieving the goals set. With integrated information technology, it is easier for academics to organize and manage academic and non-academic activities at school. Just like at the Kesatuan Bangsa School, there are non-academic activities, *group discussions, one-on-one meetings, educational characteristics, sports and social activities*. Achievements in these activities are easily regulated and monitored in their implementation and progress. In connection with school academic activities, such as student exam scores, school exams are carried out online *through* the Edunav Information System, with the results coming out immediately after the exam is completed. This makes it easier for the academic department to quickly find out student grades after taking exams. To maintain and improve student discipline in class attendance, the Edunav Information System is the technology used for student *attendance*. Student attendance is carried out digitally through the Edunav Information

System. The teachers will record it through the information system. This makes it easier for the academic department to check and see the attendance of students in class following the lesson.

Apart from that, in the Edunav Information System, academics can find out the Teacher's Learning Implementation Plan (RPP) in digital form, making it easier for the academic department to check and see the subject teachers in the school because each teacher must make a Learning Implementation Plan and store it digitally in *Edunav*.

Another important thing is related to school documents. The existence of the Edunav Information System can store important school documents. The *Edunav* Information System makes it easy for the academic department to store important school administration documents properly and neatly, such as building permits, cooperation contracts, land deeds, etc.

c) Public Relations section

Public relations is the most important part which cannot be separated from school institutions because the existence of public relations creates good relations between the school and outside parties. Public relations is part of the school's marketing to attract interest from the outside community to send their children to Kesatuan Bangsa School. Through the use of various social media, such as YouTube, Instagram, Facebook and others, the school management continues to provide information related to the school as widely as possible to increase

information regarding the existence of the school and attract the interest of the wider community.

The existence of the Edunav Information System at Kesatuan Bangsa school received a positive response from the internal Public Relations Department. Before Edunav came into the picture, the registration process was done manually following the format of the enrollment report sent from Jakarta to partner schools. The enrollment report contains the number of form contents, test participants and re-enrolled students. This report was forwarded to the management and also the central foundation in Jakarta. This made the enrollment process less effective and efficient. After the implementation of Edunav, the process of registering new students has become more concise and simple, the reports are also available in the system itself. In the Edunav Information System, there are information report features related to school registration and marketing. This registration feature serves to detect the number of forms which have been filled in, the number of test participants, the number who have re-registered, the registration of new students or transfer students, and new students who come from our school or other schools. This registration feature is also a mapping of applicants based on regular or scholarship pathways.

d) Teachers

The quality of educational institutions does not only depend on the student achievements achieved while participating in learning activities at school, but also the

quality of the teaching staff, in other words, the teachers availability. This requires teachers as resources in schools to understand the use of technology which can support the learning process. The presence of an information system in educational institutions which provides a lot of information is very useful for teaching staff in helping the learning process be effective and efficient. Carrying out work which was originally conventional when the information system has changed to digital, it is a big change which is beneficial for teachers in using technology. The presence of the Edunav Information System at the Kesatuan Bangsa School is no exception, this has had a huge impact on the teaching staff at the school. Moreover, during the COVID-19 pandemic, Edunav helped teachers in conducting online learning and processing student data into information. The use of Edunav during the pandemic was carried out in a hybrid manner with Google Classroom.

The existence of an information system at Kesatuan Bangsa School makes it easy for teachers to manage academic data and store it into a database. It also benefits teachers because it is easier to make reports for academic purposes, and make it easier to find data when needed in teacher administration and school academic affairs. As well as in the exams conducted, the development of Edunav into a Learning Management System (LMS) makes it easier for teachers during the mid-exam and final-exam process. Because the exam is done online through the system for all subjects the value of each subject

tested, the grades will come out directly when the exam is over. At the beginning of the implementation of the Edunav Information System, only certain subjects could be done through the system because it was still in the trial stage, but over time the development continued until all subjects took the edunav exam.

## 2. For Students

*Edunav* Information System at the Kesatuan Bangsa School provides excellent benefits for students in supporting the learning process and outside of learning. As an information medium, the existence of the Edunav Information System makes it easier for students to obtain school-related information in academic and non-academic terms. In terms of academics, the *Edunav Information System* provides information regarding lesson schedules, student grades and graphs, subject teachers, student report cards, exam results, attendance/attendance, and obtaining learning materials. Furthermore, in *Edunav*, one can find out the test scores faster because after taking the test, the scores come out immediately. Just like when the EASE exam is taken, when one finishes answering on the questions, the scores come out immediately. In *Edunav*, students can also see progress charts of subject grades, so they can compare when the graph goes up or the graph goes down. This makes *Edunav* an evaluation of students when maintaining grades or increasing grades in each subject. Furthermore, the graph of these values becomes motivation and encouragement for students because they can predict how many grades they should get when they want to enter the university and the desired major. To improve the learning process, the Edunav Information System developers are starting to add the function of the system as a supporting medium in learning,

the existence of the *Edunav Information System* as a *Google classroom* provides full support in the learning process. This makes it easier for students to get material from the system that has been uploaded by the subject teacher. However for now, it has not been used optimally because it is still in the development stage. This process can be a concern for the developer or developer to improve the update of the system.

Apart from academic matters, the presence of the *Edunav Information System* is also related to non-academic matters. The *Edunav Information System* provides information such as giving added value from teachers in this case about giving *green cards/red cards*, knowing the results of tests carried out by students such as personality tests, and information related to extracurricular activities. Unfortunately, the information on extracurricular activities is not optimal using the *Edunav Information System*, it has not been used optimally regarding extracurricular schedules and supervisors.

### 3. For Parents

Since some of the parents live far away, separately from their children, and they are busy with their work, they cannot monitor their children's progress at school all the time. This fact will have an impact on student achievement and discipline while they are at school. Therefore, there is a need for school to provide the best service for the parents because it supports student achievement at school. Every parent wishes to monitor and control their child's progress in following the learning process, such as the values obtained, school assignments, and all activities related to school academics. Therefore, the existence of the *Edunav Information System* at *Kesatuan Bangsa* school has a positive impact on parents, because with this system parents can monitor and control their child's learning progress while participating in

learning, such as daily grades, test scores, teachers, lesson schedules, attendance, and other activities that shape students' personality and character. This becomes an evaluation of parents to their children to encourage achievement in learning and increase discipline while at school.

## Conclusions

### *Factors which Drive Educational Innovation*

Below are several driving factors found in the research related to the innovation of the Implementation of Education Management Information Systems in *Kesatuan Bangsa Schools* which is called the *Edunav Information System*.

- 1) Data processing is done manually and recorded in a book which makes it less effective and efficient in carrying out education management governance. Therefore, learning activities will be hampered if administrative management is less than optimal. Slowly the classical learning methods were left behind with changes which were more effective, interactive and attractive by combining contemporary educational methods with modern technology at *Kesatuan Bangsa Schools*.
- 2) Some problems occur in the field of processing school data which is increasingly complex, such as there is no integrated system. So the emergence of inputs from each school requires a system and then creates an information system which is integrated, connected directly and able to store as a whole in one data system.
- 3) Increasing competitiveness among schools is significant, especially for private schools. This encourages schools to improve services in the learning process and the results obtained by each student.

- 4) There is a school initiative to make a change from conventional to digital school with the application of information technology. The presence of information technology in educational institutions is highly important because the digital changes will make school administration and learning activities run more effectively.

### *Benefits of Implementing Edunav Informations Systems*

Based on the results of the study, it was found that the Edunav Information System provides benefits as a school information system, including for school institutions, for students, and for parents.

#### 1. For School Institutions

The application of the Edunav Information System in the Kesatuan Bangsa School provides benefits for school institutions. To be specific, the benefits are as listed below.

- 1) As a school information system, Edunav helps schools manage school management more effectively and efficiently.
- 2) As a learning media, the Edunav Information System has developed into a Learning Management System (LMS).
- 3) As a media for student control in conducting school exams, in this case the Edunav Information System provides convenience for schools in controlling students in carrying out mid-semester examinations and end-semester examinations. Besides that, the information system also provides benefits in several parts of the school, including for the principal, for academics, for teachers, and for the school's public relations department.

- a. Principals, including:
  - to simplify school management,
  - to facilitate the evaluation of the performance of teachers, admins and staff,
  - to monitor and control student performance.
- b. The academic section, including:
  - to know the progress of students in one week,
  - to know the Teacher's Learning Implementation Plan (RPP),
  - to know student test scores faster and precisely,
  - to monitor the atsignance or student attendance,
  - to save important school documents.
- c. Public Relations Department, including:
  - to simplify the registration process and reporting of new student data collection,
  - to know faster the number of students who register according to their respective paths,
  - to easily access and control the number of new student registrations.
- d. Teachers, including:
  - to add knowledge, technology literate teachers,
  - to facilitate data processing and data back-up,
  - to easily monitor the student attendance
  - to facilitate the assessment of students.
  - to make it easier for teachers to do exams.

#### 2. For Students

Edunav Information System at the Kesatuan Bangsa School provides significant benefits for students in supporting the learning process and outside of learning, including:

- 1) as a medium of information, in terms of academic and non-academic.
  - Academically, the Edunav Information System provides information related to class schedules, student grades and their graphs, subject teachers, student report cards, exam results, attendance, obtaining learning materials.
  - Non-academic, the Edunav Information System provides information such as the provision of discipline scores from homeroom teachers and teachers as praise or warning. As well as information on student development in extracurricular activities, but currently the use of Edunav for extracurricular activities is not optimal.
- 2) as a supporting media in learning activities,
- 3) as a supporting medium in continuing studies.

### 3. For Parents of Students

Edunav Information System at the Kesatuan Bangsa School has a positive impact on parents because with this system, parents can monitor and control the learning progress of their children while participating in learning and other activities which shape the personality and character of students.

### Recommendations

From the analysis above, several suggestions can be considered by developers and users of the Edunav Information System, as below.

1. Many other facilities can be developed in this system. This development can certainly improve the performance of the system to be better in order to meet the demands and needs of the educational institutions.

2. To optimize the use of the Edunav Information System, it is necessary to increase the mastery and understanding of technology from existing human resources.

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## Implementation of Exemplary Leadership in the Unit Development in Arhanud 003/ARK Detachment, Cikupa, Tangerang

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### Abstract

The leadership role which prioritizes the element of exemplary behavior by the commander is essential in the implementation of unit development at Arhanud 003/ARK Detachment. This is related to unit members who are required to maintain their operational readiness to protect the unit against all increasing air attacks. Quantitative research conducted on all members of the Detachment aims to explore the implementation of Exemplary Leadership through practices (Model the Ways, Challenge the Process, Inspire a Shared Vision, Enable Others to Act, and Encourage the Heart) by the Commander in the unit development at the Arhanud 003/ARK Detachment and knowing the implementation of Exemplary Leadership from these five indicators which are the most influential in unit development at Arhanud 003/ARK Detachment. Multiple regression analysis using the Stepwise method shows differences in the application of Exemplary Leadership according to Battery A, Battery B, Missile Platoon, and Maintenance Platoon. This condition has an impact on unit development at the Arhanud 003/ARK Detachment. The results of the analysis show that unit development is positively influenced by the implementation of Exemplary Leadership in the practices of Challenge the Process and Encourage the Heart, while other factors (Model the Ways, Inspire a Shared Vision, Enable Others to Act) are not that influential. This is because there are still obstacles and barriers in the unit development at the Arhanud 003/ARK Detachment which require innovative strategies and ideas as well as members who are always optimistic in improving the unit development at the Arhanud 003/ARK Detachment.

**Keywords:** unit development; exemplary leadership; leadership; Air Defense Artillery; Encourage the Heart

### Introduction

The Indonesian National Army (*Tentara Nasional Indonesia Angkatan Darat/TNI AD*) is one of the armed forces part of the Indonesian National Army which, based on Law No. 34/2004, has the main task of upholding the state sovereignty and protecting

the integrity of the land territory of the Unitary State of the Republic of Indonesia from various forms of threats coming from outside and within the country in the form of Military Operations For War (*Operasi Militer untuk Perang/OMP*) and Military Operations Other Than War (*Operasi Militer Selain Perang/OMSP*). The Indonesian National Army is

the main component of the country's defense force on land which in carrying out its duties is largely determined by the effectiveness of the implementation of unit development, in which this activity must be built and prepared carefully to perform national defense on land in accordance with the country's defense system (*Sistem Pertahanan Negara/Sishaneg*). Unit development (*Pembinaan Satuan/Binsat*) is conducted by units in the Indonesian National Army to achieve the successful implementation of the main tasks optimally. Unit development is efforts, works, and activities which include planning, organizing, carrying out activities, and providing abilities, motivation, and control in order to produce a level of toughness of unit combat forces as a harmonious combination of physical and non-physical aspects. Unit development consists of guidance in the areas of organization, personnel, materials, training, bases, and software which is carried out from the planning stage, preparation stage, and implementation stage.

Arhanud 003/ARK Detachment is a unit of the Indonesian National Army which has the main task of performing active air defense of all vital national objects by destroying, eliminating or reducing the force and usability of enemy air attacks using air vehicles in the form of airplanes, guided missiles or ballistic missiles at low level altitudes in order to support the main tasks of the Arhanud 1/ Falatehan Regiment. When it is viewed from the perspective of national defense, according to Hankam (2013), the Unitary State of the Republic of Indonesia which has such a large national airspace certainly has the potential to be vulnerable, such as the risk of violation of the sovereignty of the Indonesian state's airspace by using aircraft which could endanger the national security in relation to aviation operations and on a high threat scale, it can also affect regional sovereignty. An example of an airspace violation which occurred was a violation committed by the Australian Air Force where its F-18 Hornet

jet flew in Indonesian airspace, to be precise above Roti Island, without permission, apart from that, Malaysian military aircraft entered the airspace above Ambalat waters were once claimed to be the sovereign territory of Malaysia.

Currently, the development of aerial vehicle technology has developed rapidly. This has caused war tactics in the current era to change, in which the use of high-tech weaponry combined with airborne vehicles has become the main force in modern war. One example of changes in modern warfare tactics is the war between Armenia and Azerbaijan. The conflict triggered by the Nagorno-Karabakh territorial dispute was countered by Azerbaijan by deploying new forces, in the form of combat UAVs from Turkey. Azerbaijan attacked Armenian tanks with drones and proved effective in repelling the strength of the Armenian troops. Combat drones (UCAV) are now emerging as a frightening new weapon trend and many countries are starting to adopt the use of these drones as tactical and strategic defense equipment in combat.

Another example of the use of airborne technology in modern warfare is the war between Ukraine and Russia. Russia optimizes the use of drones to search for and stake out the enemy positions to destroy them using cannons. Apart from that, Russia also uses Kamikaze drones to attack vital objects of the Ukrainian such as nuclear power plants to cut off the supply of energy sources and create terror in Ukraine. The Kamikaze drone is a weapons system which has a warhead on the fuselage and has the ability to loiter, or "roaming" and moving around the target area for a certain period of time to search for and identify targets before conduct an attack. In contrast to UCAV (Unmanned Combat Aerial Vehicle) or Unmanned Aircraft, Kamikaze drones are designed to carry out attacks and destroy targets by directly crashing into them to destroy the target.

Based on the two major events above, it can be seen that the development of types of air threats has developed rapidly and the concept of war in the current era leads to the use of air vehicle attacks to paralyze the offices and vital objects of the opposing party so that air defense units are required to always be operationally ready to face these air threats.

The Arhanud 003/ARK Detachment is an air defense artillery unit which has composite-type defense equipment to deal with all forms of air threats and has the main task of carrying out air protection for vital national objects located in the capital city of Indonesia, or DKI Jakarta precisely. Composite here means having a mixed type of air defense equipment between cannons and missiles. The cannon owned by the Arhanud 003/ARK Detachment unit is a 23 mm/Zur cannon, while the missiles owned are the Poprad type. To ensure the operational readiness of the Arhanud 003/ARK Detachment unit which has this composite type of defense equipment and then to face the increasingly complex dynamic situations and conditions as well as relatively rapid changes in air threats, it is highly essential for this unit to carry out unit training which is carried out in a directed and continuous manner.

The implementation of unit training in the Arhanud 003/ARK Detachment unit has run well, however, there are still outstanding problems in its implementation. Based on the Arhanud 003/ARK Detachment Unit Report in the third quarter of 2022, there are two main problems which become a concern, specifically the personnel and training aspects. Problems with unit development in the field of personnel aspects will include the "fact that there are still soldiers who commit disciplinary violations, both pure disciplinary violations and impure disciplinary violations.

In relation to realizing good unit development, a study by Hajri, et.al., (2018) suggests that the unit development requires a leadership role. Leadership in

the implementation of unit development is a manifestation of personality and intellectual qualities or knowledge related to a vision and mission to be achieved. Personality quality means that intellectual qualities with innovation, creativity, and a sense of concern are required to be shown by a leader towards the surrounding environment and the members they lead. These characteristics are demonstrated through attitudes, behavior, actions, and words which are seen and heard by its members, thereby realizing obedience and awareness to arise naturally. Meanwhile, intellectuality is related to the ability to acquire knowledge and apply it to overcome problems which arise. For the progress of the unit, leadership plays a very important role. Apart from the ability to apply good leadership qualities, skills in mastering the knowledge of leadership which can be applied in the unit coaching patterns are very necessary in the implementation of unit coaching. Ristiandy (2012) in his article stated that good leadership functions need to be to realize the appropriate, fast, and continuous unit development carried out by the unit. Forms of problems that exist within the unit which are not immediately resolved can cause the unit's capabilities to become "dull" or even "dead" so that the main task of the unit cannot be achieved.

Some of the research above states that the leadership role of commanders in units has a positive influence on the implementation of unit development within the Indonesian National Army units. However, in some of these studies, there is still a 'research gap'. Research by Pujiyanto, et.al. (2021) does not consider the application of leadership carried out by the commanders in the Indonesian National Army units, especially in the context of carrying out unit development to create units which are operationally ready. This research only takes the perspective of which activities are carried out in the unit development strategy, even though the application of good leadership is very

important to realize good unit development. Meanwhile, research by Hajri, et.al. (2018) shows the role of leadership in the unit development. The role of the leader has an important meaning for the progress of the unit. However, in this research, there is no specific leadership style focusing on the unit development. Hajri, et.al. (2018) stated that in unit development, it is necessary to use more innovative and creative methods by highlighting leadership initiatives which are linked to the existing unit conditions. Research by Saptono & Pratomo (2018) and Fitriani et.al. (2022) focuses on the role and implementation of leadership carried out by the Supreme Commander in the Indonesian National Army Unit, to be specific the Military District Commander who is the Supreme Commander of the Military District Level Unit, and the Battalion Commander who is the Supreme Commander of the Battalion Unit. Therefore the implementation of leadership in unit development is only centralized even though the unit has components of other commanders who also have duties and responsibilities in carrying out unit development.

Leadership has been stated in the Indonesian National Army's Kartika Eka Paksi Doctrine (2020) which based on the Indonesian National Army Leadership Doctrine, the Army leadership culture contains the leadership values inherited by the nation's founders. The leadership culture of the Indonesian National Army has the characteristics of being polite, has a morality, responsible, having exemplary values, being close to subordinates, being an educator who always provides enlightenment and motivation, upholding the sanctity of their struggle and service, being visionary or far-sighted, communicative, as well as realizing loyalty and willingness to sacrifice to the subordinates. The level of adherence and loyalty between the leaders and those who are being led in order to create harmonious communication is an embodiment of the

values of the Indonesian National Army leadership. In performing their leadership, the Indonesian National Army soldiers are guided by the rules contained in the 11 Leadership Principles of the Indonesian National Army. In the study, Arifin, et.al. (2018) stated that the implementation of the 11 Leadership Principles of the Indonesian National Army which were practiced by the leaders, it showed that leadership which prioritizes exemplary leadership applied to soldiers in the Indonesian National Army units is highly essential in the implementation of unit development. In the 11 Leadership Principles, there is a principle of *Ing Ngarso Sung Tulodo*, which means giving a role model in front of subordinates and in the leadership principle, it is stated that as a leader, one must be able to be an example for the subordinates (Indonesian National Army's Doctrine of Kartika Eka Paksi, 2020). The study explains that a commander must be able to set an example in front of the members in the implementation of the leadership, not only by giving an example but also by being an example. The consequence of being an example is that every leader's behavior must be used as a good example by the members at all times. For example, through physical training activities in the unit, the Commander also carries out physical training together with their subordinates. As a leader in the Indonesian National Army unit, the Commander must also have a good disciplinary character, be honest and fair, be consistent both in words and deeds, and be able to set a good example to the members. Members or subordinates will have good discipline when the Commander in the unit can apply leadership which prioritizes exemplary leadership. If the exemplary leadership is realized from the leader is not good, the members will also follow to not being good. All behaviors, deeds, and characteristics carried out by the leadership will have an indirect effect on the members to emulate and become a reflection of their

members' actions. If the unit wishes to improve the discipline of the soldiers, they can start from providing a good example from the top leaders in the unit. Exemplary leadership has a significant influence on increasing discipline. Furthermore, Sahwan (2020) stated that carrying out training requires exemplary action as an effective tool of training.

Based on the foregoing, in order for the implementation of unit training at Arhanud 003/ARK Detachment to be performed well and to achieve the desired goals and objectives, a form of leadership which prioritizes exemplary leadership is needed in which the implementation of this leadership is carried out by the commander elements in the Indonesian National Army unit. In developing the Arhanud unit, the importance of exemplary leadership was conveyed and brought to the attention of the Commander of the 1/F Arhanud Regiment in the Officer's roll call activity.

The implementation of exemplary leadership can be analyzed based on the theory of the five practices of exemplary behavior proposed by Kouzes and Posner (2007: 14). This theory stated that the Five Practices of Exemplary Leadership are five guiding principles which leaders need to have and develop to be able to make a change and achieve the goal, as well as creating an atmosphere in which people challenge the opportunities to create extraordinary success (Kouzes and Posner, 2007 & 2010). The Five Practices of Exemplary Leadership which was developed by researchers James Kouzes and Barry Posner consists of five aspects identified as the Exemplary Leadership: (1) Model the Way, (2) Inspire a Shared Vision, (3) Enable Others to Act, (4) Challenge the Process, and (5) Encourage the Heart. Kouzes and Posner (2007) explained the five practices in detail in the following. (1) Challenge the Process shows that leaders have a focus on seeking and accepting

challenges, supporting and recognizing innovative ideas, conducting experiments with new systems and daring to take risks to provide change, looking for innovative ways to improve organizational capabilities. (2) Inspire a Shared Vision is the ability of a leader to imagine the future or ideals and clearly articulate the vision to their members in order to gain support from the members and trust in the vision. (3) Enable Others to Act are way to build good forms of teamwork, trust, confidence, and empowerment. Leaders encourage collaboration and build a passionate team. (4) Model the Ways explains the importance of leaders being role models for their members and leaders being willing to act on their beliefs, not just talk about themselves. Leaders establish principles about how people should be treated and how they should pursue goals. (5) Encourage the Heart is a collection of large or small actions by a leader which can encourage and support their members and help the team celebrate winnings.

Based on the background above, it can be seen that in order for the implementation of unit training in the Arhanud 003/ARK Detachment to be carried out well and to achieve the desired goals and objectives, the Commander as the leader who has duties and responsibilities in the combat aspect is also required to apply leadership which prioritizing good example in the unit development. This study aims to explore the application of Exemplary Leadership from Cannon Battery Commanders, Missile Platoon Commanders, and Maintenance Platoon Commanders to their members as seen from the indicators in the Five Practices Exemplary Leadership which includes the practices of Model the Ways, Inspire a Shared Vision, Challenge the Process, Enable Other to Act, and Encourage the Heart in unit formation at Arhanud 003/ARK Detachment and found the most dominant practice of the five practices.

## **Methods**

Here the researcher used quantitative methods. The field research applied here was carried out by distributing questionnaires to members of the Arhanud 003/ARK Detachment's soldiers. The selection of the Arhanud 003/ARK Detachment as the research locus was based on the consideration that the Arhanud 003/ARK Detachment was a unit with a composite weapon system in the form of missiles and cannons as its main tool to counter advanced air attacks. Therefore, in unit development, especially in the aspects of personnel and training, the unit must really pay attention so that the defense equipment can function properly and is always operationally ready to face air attacks. The primary data in this study was obtained using a questionnaire distributed to all soldiers from Cannon Battery A, Cannon Battery B, Missile Platoon, and Maintenance Platoon in the Arhanud 003/ARK Detachment unit. The questionnaire was distributed with the help of a Google Form which contained closed questions and also used a Likert scale, with a Likert scale of values 1 to 4 (value 1 = strongly disagree and value 4 = strongly agree) regarding the ability of the Commander in implementing exemplary leadership practices as seen from the five exemplary leadership practices. Meanwhile, the secondary data is collected from various forms of reports or documents which are written information supporting this research. Data collection was used through a census, which in this study, the research subjects were all members of the Arhanud 003/ARK Detachment soldiers who were actively serving in the Cannon Battery section A (41 people), Cannon Battery B (34 people), Missile Platoons (13 people), and the Maintenance Platoon (10 people) with a total of 98 people. From them, information was obtained regarding the assessment of the members' perceptions regarding the implementation of Exemplary Leadership by

the leader or Commander in their section in the implementation of unit development at Arhanud 003/ARK Detachment. Furthermore, the object of this research is the Commander from these sections of the organization which include officers from the Commander of Cannon Battery A, the Commander of Cannon Battery B, the Commander of Missile Platoon, and the Commander of Maintenance Platoon regarding the implementation of their respective Exemplary Leadership in unit development at Arhanud 003/ARK Detachment. In this research, the analytical method used is a multiple linear regression model using the Stepwise method with the aim of finding out which independent variables from the five Exemplary Leadership practices, specifically Model the Ways (X1), Challenge the Process (X2), Inspire a Shared Vision (X3), Enable Others to Act (X4), and Encourage the Heart (X5), which influence Unit Development (Y) in the Arhanud 003/ARK Detachment unit individually and as a whole. In this research, several tests were also carried out, including validity and reliability tests, multicollinearity tests, and heteroscedasticity tests.

## **Results and Discussion**

### *The Implementation of Unit Development in Arhanud 003/ARK Detachment*

In Cannon Battery A with a total of 41 members, the majority considered that the unit training had been carried out well, with 19 members assessing that the unit training had been carried out well (46.3%). Furthermore, there were 6 people who rated unit training as quite good (14.6%) and the remaining 16 people (39.0%) thought that unit training was still inadequate. In the Battery B section with a total of 34 members, there are 12 people (35.3%) who assess that the unit development has been carried out well. Furthermore, there were 11 people who

rated the unit training as quite good (32.4%), and the remaining 11 people (32.4%) thought that unit coaching was still inadequate.

In the Maintenance Platoon section with a total of 10 members, 4 members (40%) assessed that the unit development had been carried out well and 3 people (30%) assessed that the unit development was quite good, and the remaining 3 people (30%) believes that the unit development is still inadequate. Furthermore, in the Missile Platoon section with a total of 13 people, 6 members (46.2%) considered that the unit development had been carried out well and 2 people (15.4%) considered that the unit development was quite good and the remaining 5 people (38.5%) considered that the unit development was still inadequate.

Meanwhile, in the Missile Platoon with a total of 13 members, most of the members (12 people or 92.2%) had never conducted domestic or overseas assignments. For 1 member who has conducted a domestic assignment, it was in 2021 with an assignment as a territorial officer in Papua. Furthermore, the table shows that with a total of 98 members, which is a total number of members from the Cannon Battery A, Cannon Battery B, Missile Platoon, and Maintenance Platoon in the Arhanud 003/ARK Detachment unit, 41 members (41.8%) thought that the unit development had been carried out well and 22 people (22.4%) said that the unit training is still inadequate as for 35 people (35.7%), they said that the unit training is still inadequate. From the information above, it can be concluded that from the results of the member's assessment of the unit training, more people rated it as adequate or inadequate.

Regarding the unit training performed at Arhanud 003/ARK Detachment, based on the report of Arhanud 003/ARK Detachment unit, in implementing the unit training at the Arhanud 003/ARK Detachment, there are still several obstacles faced, such as in the unit training in the organizational field, there was

an obstacle found in form of shortage of officer and non-commissioned officer personnel. The shortage of officers was officers in the positions of platoon commanders and staff officers, while there was still a shortage of non-commissioned officers in the staff non-commissioned officer section. In the unit development of the personnel section, there are still several obstacles occurring, including the unrealisation of transferring proposals for members who have been submitted to be transferred to other units, delays in the legal process from the Upper Command in resolving cases occurred, and there are still rank discrepancies in the current organization. Furthermore, in the unit development in the material sector, there are still problems and obstacles in the form of the condition of the defense equipment which is still damaged due to limited spare parts and the lack of repair support from the Upper Command. In the unit development of the base sector, there are also several obstacles in the form of sports facilities and infrastructure which are damaged so they cannot be used optimally. There are still members' housing which are uninhabitable and need repair and there are still warehouses or garages for defense equipment vehicles which are damaged. Then the obstacles related to unit development in the field of training were the difficulty of finding an ideal location for deploying the defense equipment to conduct defense equipment training and the implementation of training which could not be carried out in its entirety due to damage to the defense equipment. In the unit development of the software, there are obstacles in the ownership of software because not all of the software owned by the unit were being supported according to the unit's ideal needs, thus becoming an obstacle to implementing activities and training.

The Arhanud 003/ARK Detachment Unit has attempted to overcome obstacles occurred in the implementation of the unit development. Some of the efforts were targeted at the organizational section in the

unit development. These obstacles were overcome through the unit's efforts to inform the shortage of officer and non-commissioned officer personnel in the Upper Command. On the issue of unit development in the personnel section, the unit strives to always carry out intensive supervision and control, regular counseling to all members as well as reporting the condition of the organization through organizational development reports which are routinely carried out every semester to the Upper Command. Regarding problems in the material sector, the unit strives to carry out limited defense equipment repairs independently of the unit and periodically reports the need for spare parts support to the Upper Command. On the unit development in the base personnel, the Arhanud 003/ARK Detachment unit endeavors to carry out minimum repair to the damaged housing and facilities and periodically reports the need for repairs and facilities to the Upper Command. In the field of training, the unit tries to find training locations through coordination with related units or agencies. Furthermore, to overcome obstacles in unit development in the field of software, the Arhanud 003/ARK Detachment unit seeks to borrow software which the unit does not have from other units and periodically submit software deficiencies to the Upper Command.

#### *Implementation of Exemplary Leadership in Arhanud 003/ARK*

From the research results, it was found that with the total number of members, as the total of all members of Cannon Battery A, Cannon Battery B, Missile Platoon, and Maintenance Platoon in the Arhanud 003/ARK Detachment unit, 40.8% implemented the practice of Model the Ways, 37.8% implemented the practice of Challenge the Process, 40.8% implemented the practice of Inspire a Shared Vision, 44.9% in the practice of Enable Others to Act, and 42.9% implemented the practice of Encourage the Heart. The

members assessed that the practices of implementing Exemplary Leadership have been conducted well. In the Maintenance Platoon, it shows that the implementation of the Challenge the Process practice as a part of the Exemplary Leadership was carried out by the Maintenance Platoon Commander and it is considered good by 10% of members. Therefore, the remaining 90% of members in the Maintenance Platoon assess that the implementation of Exemplary Leadership from Challenge the Process practice carried out by the Maintenance Platoon Commander was considered not good.

From the field observations by researchers, this happened because the Missile Platoon Commander was an officer who graduated from Secapa Angkatan Darat in 2020 and before serving in Arhanud 003/ARK Detachment, the Maintenance Platoon Commander served in Arhanud Battalion 1/Kostrad with a different main weapon system compared with the Arhanud 003/ARK Detachment unit. Arhanud Battalion 1/Kostrad has Mistral Missile-type defense equipment, while Arhanud 003/ARK Detachment has Groom Missile composite-type defense equipment. Furthermore, based on the length of service in the Arhanud 003/ARK Detachment unit, most of the members in the Missile Platoon have served for more than 7 years, in fact, 4 members of the Missile Platoon have served for more than 10 years. Thus, for the Maintenance Platoon's task of maintaining the main weapons system equipment and other materials in the Arhanud 003/ARK Detachment unit, these members have more experience, both in terms of knowledge and skills. In conducting defense equipment maintenance in the Arhanud 003/ARK Detachment unit, which is related to the implementation of Exemplary Leadership in the Challenge the Process practice, the Maintenance Platoon Commander has provided innovative ideas which had been used in his previous unit to be applied to defense equipment maintenance in the

Arhanud 003/ARK Detachment. However, due to the condition of the members who had served for a long time there and were more experienced in conducting the defense equipment maintenance at Arhanud Detachment 003/ARK, they felt that the innovative ideas provided by the Maintenance Platoon Commander were not suitable to be fully applied to the defense equipment at Arhanud 003/ARK Detachment due to different types and conditions of defense equipment. Furthermore, looking back at the data on members of the Arhanud 003/ARK Detachment which is a combination of all members of Cannon Battery A, Cannon Battery B, Missile Platoon and Maintenance Platoon, it appears that the implementation of Exemplary Leadership from the five indicators, specifically Model the Ways, Challenge the Process, Inspire a Shared Vision, Enable Others to Act, and Encourage the Heart, the Section Commander have carried out each in a percentage value of less than 50%. The results of observations in the field show a lack of opportunities for commanders to apply their leadership directly to members or vice versa, to be specific the opportunity for members to be led directly by their Section Commanders.

This lack of opportunity is caused by busy activities to support security and guard duties in the capital area, such as Presidential security duties, Headquarters guard duties, Regiment Guard duties, and other security and guard activities. These guard duties require a lot of troops so in daily activities, the members rarely meet directly with their Section Commanders in the Arhanud 003/ARK Detachment unit.

*Factors Influencing the Unit Development in the Arhanud 003/ARK Detachment*

Researchers used regression analysis using a Stepwise method which aims to find out which independent variables from the five Exemplary Leadership practices, that is Model the Ways (X1), Challenge the Process (X2), Inspire a Shared Vision (X3), Enable Others to Act (X4), and Encourage the Heart (X5), influences the Unit Development (Y) in the Arhanud 003/ARK Detachment unit and overcomes the assumption of multicollinearity.

The results of regression models using the Stepwise method are summarized in Table 1 below.

**Table 1. Results of Multiple Analysis Stepwise Method**

<b>Sections</b>	<b>Regression Model</b>	<b>R Square Values</b>
Battery A	$Y = 2.532 + 0.723 X3$	0.523
Battery B	$Y = 14.602 + 1.496 X1 + 1.262 X5$	0.672
Missile Platoon	$Y = 11.841 + 2.993 X5$	0.702
Maintenance Platoon	$Y = - 1.235 + 8.849 X2 - 8.543 X3 + 3.332 X4$	0.954
Arhanud 003/ARK Detachment	$Y = 18.936 + 1.308 X2 + 1.307 X5$	0.530

Source: Primary Data processed (2023)

From Table 1, it can be seen that the regression model using the Stepwise method in Battery A is  $Y = 2.532 + 0.723 X_3$  with an R Square value of 52.3%. This means that unit development in Battery A is significantly influenced by the practice of Exemplary Leadership in the Inspire a Shared Vision ( $X_3$ ) aspect amounting to 52.3% and the remaining 47.7% is influenced by other factors. The regression model in Battery B is  $Y = 14.602 + 1.496 X_1 + 1.262 X_5$  with an R Square value of 67.2%. This means that unit development in Battery B is significantly influenced by the practice of Exemplary Leadership in the aspects of Model the Ways and Encourage the Heart simultaneously amounting to 67.2% and the remaining 32.7% is influenced by other factors. In the Missile Platoon section, the resulting regression model is  $Y = 11,841 + 2,993 X_5$  with an R Square value of 70.2%. This means that unit development in the Missile Platoon section is only significantly influenced by the practice of Exemplary Leadership in the Encourage the Heart aspect carried out by the Missile Platoon Commander towards their members with a total of 70.2% and the remaining 29.8% is influenced by other variables. Then in the Maintenance Platoon section, the resulting regression model is  $Y = -1,235 + 8,849$ . This means that the unit development in the Maintenance Platoon is significantly influenced by the practice of Exemplary Leadership in the aspects of Challenge the Process, Inspire the Vision, and Enable Others to Act simultaneously at 95.4% and the remaining 4.6% is influenced by other factors. Furthermore, in general, the members of the Arhanud 003/ARK Detachment, specifically a combination of Cannon Battery A, Cannon Battery B, Missile Platoon, and Maintenance Platoon, show that there is a regression model, that is  $Y = 18.936 + 1.308 X_2 + 1.307 X_5$  with an R Square value of 53%. This means that unit development in the Arhanud 003/ARK Detachment is generally and significantly influenced by the practice

of Exemplary Leadership in the aspects of Challenge the Process and Encourage the Heart simultaneously amounting to 53.0% and the remaining 47.0% is influenced by other factors.

Furthermore, looking at the indicators for the implementation of Exemplary Leadership based on the table, the variable Inspired a Shared Vision ( $X_3$ ) has an effect on the unit development ( $Y$ ) in Battery A and the Maintenance Platoon. This is because the Battery A section has a majority troop composition with the rank of *Prada* and *Serda* and the majority have served for 1 year and less than 1 year. Based on rank, Cannon Battery A with a total of 41 members has 24 members with the rank of *Prada* (58.5%), the rank of *Pratu* with a total of 4 people (9.8%), 5 people with the rank of *Serda* (12.2%), the rank of *Sertu* is 6 people (14.6%), and the rank of *Serka* is 2 people. Furthermore, based on the length of time they served in the Arhanud 003/ARK Detachment unit, in the Cannon Battery A organization with a total of 41 members, most of its members served between 1 year and less than 1 year. With the 18 members who served for 1 year (43.9%) and 8 members who served less than 1 year (19.5%), these percentages show that the members of Cannon Battery A are young soldiers and have just joined the Arhanud 003/ARK Detachment unit. Based on the Arhanud 003/ARK Detachment Work Program, Battery A is the part responsible for carrying out training activities, starting from individual-level training to battery-level training.

Exemplary Leadership theory (Kouzes & Posner, 2007) suggests that the practice of Inspire a Shared Vision is the ability of a leader to imagine the future or ideals and clearly articulate a vision to its members, thereby gaining support from its members and trust in the vision conveyed. Wiley and Sons (2022) explain further the steps in implementing the Five Practices of Exemplary Leadership, one of which is the

Inspire a Shared Vision practice. In this practice, in inspiring a shared vision, leaders take the time to imagine the future and share that vision with their people, which will have a tremendous impact on motivation levels and productivity in the workplace. Regarding the members of Battery A, the majority of whom are young soldiers and where the task requirement in this section is to carry out training well, this practice will be very supportive in achieving this task. The Battery A Commander is required to have the ability to socialize and explain the vision and mission, especially regarding the unit development. Understanding and a clear vision will be a reference for members in participating in the training activities carried out.

Based on the regression results table, it can be seen that Model the Ways (X1) has an influence on Battery B. This is because there is a shortage of non-commissioned officer personnel who serve as non-commissioned officer Shooters. This situation had an impact on the change of function of Battery B, which was originally a training battery, to become a battery that supports protocol activities in the unit and assists in carrying out base maintenance in the Arhanud 003/ARK Detachment unit.

The Exemplary Leadership Theory (Kouzes & Posner, 2007) states that the practice of Model the Ways consists of two commitments in which the leader can clarify the values to be used by expressing opinions and can provide examples of actions which are adapted to existing values. Wiley and Sons (2022) further stated regarding the practice of Model the Ways that something which creates real success in the workplace is a room where leaders and followers align values for a common goal. Shared values are the basis for building productive and genuine working relationships. With the changes in duties which occur in Battery B, the implementation of this practice is very suitable to be applied to Battery B because members of Battery B need a leader, in this

case, the Battery B Commander, to be able to clarify and divide the tasks to be carried out, make plans and set goals, and set examples in action adapted to the new duties and responsibilities of the Battery.

Furthermore, based on Table 1, the variable of Encourage the Heart (X5) has an influence on Battery B and the Missile Platoon, even if based on the members of the Arhanud 003/ARK Detachment as a whole, this variable also influences the development of the unit. This was due to the condition of the defense equipment which was damaged in several parts. Based on the report data from the Arhanud 003/ARK Detachment unit, there are 7 cannon units which have experienced damage to the electronic system so they cannot operate properly and there are 4 units of MML Poprad Missiles which have damage to the firing components so they cannot be operated, even though these 6 cannon units are the defense equipment from Battery B and 4 units of MML missiles. The damage to the defense equipment resulted in Battery B and the Missile Platoon being unable to perform training activities in support of military operations properly. Furthermore, in general, in relation to the development of the unit in Arhanud 003/ARK Detachment, based on the unit's report, there are still several problems and obstacles which can be overcome but are still limited resources. These limitations will have an impact on decreasing member morale.

In the Exemplary Leadership theory proposed by Kouzes and Posner (2007), it is stated that the practice of Encourage the Heart is a form of large or small action carried out by the leader to be able to encourage and support his members and help the team celebrate victory, where this action is an expression of sincere feelings from the leadership to the members. Wiley and Sons (2022) explain further about the Encourage the Heart practice that instilling pride and joy in members can lead to better workplace well-being, accountability, and

commitment to the organization and can also build community spirit. Additionally, to keep hope and resolve alive, leaders must recognize the contributions individuals make. In connection with this theory and the weaknesses experienced by Battery B, the Missile Platoon, and even the entire members of Arhanud 003/ARK Detachment in general, the practice of Encourage the Heart will be really needed. Considering the shortcomings and limitations faced, there must be things in the form of actions or other achievements behind the limitations and shortcomings of these parts which can be used by the leadership to encourage the hearts of its soldiers and make it a matter of pride for members both individually and in groups. There are members who require the ability of Commanders from each section to encourage or inspire hearts and instill pride in their members so that they remain enthusiastic and not pessimistic in carrying out their daily duties at Arhanud 003/ARK Detachment.

Based on Table 1, it can be seen that the Enable Others to Act variable (X4) has an influence on the Maintenance Platoon section. This happens because the Maintenance Platoon is part of the Arhanud 003/ARK Detachment which carries out maintenance of defense equipment, materials, communication equipment, and vehicles in the unit. Apart from that, one of the tasks of the Maintenance Platoon Commander is to improve the ability of technicians to support the implementation of their principal duties of Arhanud 003/ARK Detachment. Conditions the field, of the technicians in the Maintenance Platoon, there are only two technician members who have skills in carrying out maintenance and repair of defense equipment, materials, communication equipment, and vehicles and work individually, while the other members are still unable to carry out these skills well. In carrying out maintenance activities in the workshop, access to use equipment and enter

the workshop is only held by two technician members, while the others are not permitted to use tools and enter the workshop on the grounds that it could disrupt the existing repair process.

Exemplary Leadership theory (Kouzes & Posner, 2007) states that in practice Enable Others to Act, there are concepts, such as forming teamwork, building trust, confidence, and empowerment to increase capabilities. In this practice, there are two commitments made, specifically fostering collaboration by facilitating relationships and strengthening other people by developing existing competencies. James Kouzes and Barry Posner in their theory mentioned that "Extraordinary performance is impossible unless there is a strong sense of community and shared responsibility". Leaders need to make a commitment to encourage collaboration by creating a climate of trust and facilitating relationships among people in the organization. It was further explained by Wiley and Sons (2022) that the practice of Enable Others to Act in Exemplary Leadership theory is intended to ensure that each member has the resources they need to succeed. This can be as tangible as access to equipment, programs, and technology, or interpersonal, as with more (or less) touch points across projects, opportunities to try out, or access to educational opportunities. Equipping members with the resources they need to succeed will build trust and empowerment. In connection with this explanation and the weaknesses which exist in the Maintenance Platoon, the practice of Enable Others to Act will be very necessary. The Maintenance Platoon, in order to be able to carry out its duties better, really needs the ability of the Platoon Commander to be able to apply the practice of Enable Other to Act from Exemplary Leadership, that is by developing teams, encouraging collaboration, creating a collaborative environment through cooperation between members in carrying out their duties in the maintenance section.

The Maintenance Platoon Commander needs to ask the members who are already proficient to teach their abilities and skills to members who are not yet proficient in maintaining existing defense equipment. Furthermore, in the Maintenance Platoon, the Maintenance Platoon Commander must also be able to provide freedom of access to all members, not only advanced members who can enter the workshop. The Maintenance Platoon Commander needs to provide access to all members to be able to use existing resources so that they can freely learn and practice related to defense equipment maintenance so as to create a collaborative and cooperative work environment, as well as easy access and opportunities for all members to learn and practice. Thus, all members of the Maintenance Platoon can have the ability and skills to maintain defense equipment.

Based on the table, the Challenge The Process (X2) variable has an influence on unit development in the Missile Platoon section and if seen as a whole on the members of Arhanud 003/ARK Detachment, this variable also influences unit development. In the Maintenance Platoon section, the application of Exemplary Leadership in the practice of Challenge the Process is very much needed because carrying out maintenance and repair tasks on defense equipment, vehicles, materials, and communication equipment is hampered by limited spare parts support so that the repairs carried out cannot be carried out optimally. If seen in general, the practice of Challenge the Process is really needed in unit development at the Arhanud 003/ARK Detachment because there are still problems and obstacles faced in implementing unit development, such as a lack of officers and non-commissioned officers to occupy certain positions, the condition of damaged facilities and infrastructure, as well as obstacles due to bureaucracy, such as the failure to realize the transferring proposal to other units for members and the slow legal process from

the Upper Command in resolving cases/cases. Based on Exemplary Leadership theory, in the practice of Challenge the Process, it is explained that leaders must focus on seeking and accepting a challenge, be able to recognize and support innovative ideas and dare to experiment and take certain risks to bring about positive change (Kouzes & Posner, 2007). Kouzes and Posner (2007) in their theory say "You cannot achieve something new or extraordinary by doing things the way you have always done them. You should test unproven strategies. You have to break out of the norms that limit you, strive to go beyond the limits you usually place on yourself and others, try new things and take chances". Kouzes and Posner also stated that the two commitments in this practice are increasing innovation and taking risks. Wiley and Sons (2022) explain further about this practice in this theory, that leaders look for opportunities to change the status quo by experimenting and taking risks. Often, work processes are so ingrained that we do not question why we do them. Despite its effectiveness, it is easy to go on autopilot and not stop to consider whether there is a better way, especially when the organization at large continues to push the status quo. Challenge the Process practice allows leaders to step back and assess where they have room to grow and do things differently while creating an environment within their organizations which makes it safe to challenge norms in the pursuit of greatness. When bureaucracy is an obstacle, the leader must be able to dismantle the bureaucracy and take certain risks which may arise. In connection with the explanations from this theory with the limitations and constraints of unit development in the Maintenance Platoon and as a whole members of the Arhanud 003/ARK Detachment, the practice of Challenge the Process in Exemplary Leadership is needed to improve unit development.

Due to the constraints which exist in the Maintenance Platoon regarding limited

support for spare parts in maintenance and repair, the Maintenance Platoon Commander is required to have the ability to explore innovative ideas and create certain strategies related to the maintenance and repair of defense equipment, vehicles, materials, and communication equipment existing to support operational readiness which is the aim of unit development at Detachment Arhanud 003/ARK. Furthermore, regarding the obstacles that existed in the Arhanud 003/ARK Detachment, it requires the ability of the section commanders to look for innovative ways and look for opportunities from the obstacles they face so that the efforts made are more precise, effective, and efficient in order to improve unit development in Detachment Arhanud 003/ARK. In connection with the bureaucratic obstacles faced, such as the unrealized of the proposed transfer of units for members and the slow legal process from the Upper Command in resolving cases/cases, the commanders must have the courage to take certain risks such as carrying out coordination with other units directly, so that solutions are found for these problems.

## **Conclusions**

Based on the results of research regarding the implementation of Exemplary Leadership in the unit development at the Arhanud 003/ARK Detachment and various explanations in previous chapters, several conclusions from this research are as follows.

1. In the implementation of Exemplary Leadership carried out in Battery A, Battery B, Missile Platoon and Maintenance Platoon, there are differences in the use of these five practices which can influence unit development in Arhanud 003/ARK Detachment. Unit development in Battery A was significantly positively influenced only by the practice of Exemplary Leadership in the Inspire

a Shared Vision aspect carried out by the Commander of Battery A to its members. Unit development in Battery B was significantly positively influenced by the practice of Exemplary Leadership in the aspects of the Model the Ways and Encourage the Heart carried out by the Commander of Battery B to the members. Unit development in the Missile Platoon section was positively and significantly influenced only by the practice of Exemplary Leadership in the Encourage the Heart aspect carried out by the Missile Platoon Commander towards its members. Meanwhile, unit development in the Maintenance Platoon section is influenced by the practice of Exemplary Leadership in the aspects of Challenge the Process, Enable Others to Act, and the practice of Inspire a Shared Vision carried out by the Maintenance Platoon Commander to its members.

2. The factors found which resulted in differences in the application of Exemplary Leadership in unit coaching in the Arhanud 003/ARK Detachment were the conditions and type of work, member characteristics, and the quality of the coaches, in this case the Commander in the Arhanud 003/ARK Detachment.
3. In general, unit development in the Arhanud 003/ARK Detachment is influenced by the variables Challenge the Process (X2) and Encourage the Heart (X5) simultaneously and these two variables are the dominant or most influential variables.

## **Suggestions**

Based on the results of research and conclusions regarding the implementation of Exemplary Leadership in unit development at the Arhanud 003/ARK Detachment, several suggestions can be given to the leadership ranks in the Indonesian Army, especially in the Arhanud Detachment 003/ARK unit.

1. The implementation of Exemplary Leadership in realizing good unit development in Arhanud 003/ARK Detachment does not always use the five Exemplary Leadership practices, including the practices of Model the Ways, Challenge the Process, Inspire a Shared Vision, Enable Others to Act, and Encourage the Heart together with the members in the unit, in certain situations and conditions in the Arhanud 003/ARK Detachment unit. The implementation of the five Exemplary Leadership practices will be different in their application so that the Commander in the Arhanud 003/ARK Detachment unit must be able to understand how to read the situation and conditions of dynamics or changes which occur in each section in the unit development aspect.
2. Based on the results of the analysis, it is recommended that the implementation of Exemplary Leadership in the practices of Model the Ways and Encourage the Heart be used more often in training the Arhanud 003/ARK Detachment unit because these two practices have a dominant influence and have the same value in improving unit coaching. In practice, Challenge the Process can be carried out by the Commander in the Arhanud 003/ARK Detachment, exploring ideas and looking for innovative ways and finding opportunities and strategies which can help the Arhanud 003/ARK Detachment to overcome the obstacles which occur in unit training, then in the practice of Encourage the Heart can be done by giving rewards to their members for work or tasks which have been done well related to the implementation of unit coaching as well as providing certain forms of pride to the members so that they can encourage or arouse the heart of the unit. members of the Arhanud 003/ ARK Detachment to be able to carry out their duties with enthusiasm.
3. For future researchers, it is suggested to test other variables which will influence the development of units in the ranks of the Indonesian National Army, especially the Air Defense Artillery branch in the Arhanud 003/ARK Detachment unit or they can qualitatively test the officers in the Arhanud 003/ARK Detachment regarding the vision given in the training unit.

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