The role of families and school environments on juvenile delinquency in Denpasar City: A quantitative approach

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Abstract. Adolescence is a transition period from children to adults with its characters are (a) the existence of an extension of the self; (b) the existence of self-objectification; and (c) the growth of the philosophy of life. In the transition process, an adolescent will experience a personality formation that occurs not in a simple way and has a potency for self-conflict. The existence of incompatibility between the three adolescent characteristics and the values or norms that are generally acceptable in the community has the potential to trigger an ‘emotional outburst’ for the youth if it was not properly handled by the teenager or by his/her parents and the surrounding environment. This self-conflict potentially leading to acts of irregularities, commonly refers to juvenile delinquency. This essay aims to study the effect of the socio-economic background of the family and school environment on juvenile delinquency at Denpasar City, the capital of Bali province. A hundred and fifty senior high school students at Denpasar, randomly selected as the respondents and were asked to fulfill the self-regulated questionnairé. By applying the variance-based structural equation modeling (VB-SEM), we found the socio-economic factors have a bigger effect on juvenile delinquency than the influence of school environments.

1. Introduction

The transition from childhood to adulthood is referred as adolescence period with its characteristics are (a) the existence of self-expansion, represents the need to see his/herself as another person who is made as an idol or a role model as well as the development of an ideal ego that looks something he/she likes to be ‘the best thing’; (b) the existence of self-objectification that represents the ability to start paying attention to his/herself and the growth of the sense of humor; and (c) the growth of unifying philosophy of life by starting to develop the values that are made as his/her ‘philosophy’ in society [1].

In the transition process, a teenager will experience a personality formation that does not occur easily. Refers to Sarwono [2], Refers to Sarwono, there will be significant probabilities for self-conflict to occur on a teenager in shaping his/her personality. According to Allport [1], the discrepancy between the adolescents’ characteristics and the accepted values or norms, has the potential to cause ‘emotional outbursts’, and if not properly handled by their parents and/or the surrounding environment, can lead to the deviations referred as juvenile delinquency.
Currently, the age limit definition for categorizing someone as a teenager differs among institutions. The United Nations states that a teenager is someone in the age range of 15–24 years and not married, while [3] states in Indonesia's law, especially in Act Number 11 the Year 2012, a person in the age range 12–18 years are referred as a child, not as a teenager. This act does not mention the terms ‘juvenile delinquency’, but the phrase ‘child in conflict with the law’.

For the last ten years, the increasing number of outbreaks of violence perpetrated by juveniles (people under 18 years old) at various major cities in Indonesia including Denpasar, has raised. These facts raise concerns from various parties and/or observers. According to Rimbawan [18], apart from the strategic role of Indonesia’s young generation as the future of the nation, there are a lot of concerns with the behavior of adolescents who not only violate positive laws but also violate norms believed by the community. He argued, from several forms of unlawful acts committed by adolescents such as fighting, theft, drug/narcotics abuse, and free sex; the last two issues are dominant occur in the Province of Bali.

In the realm of psychology, the teenager’s behavior is an interaction between his/her personality and external conditions. From this viewpoint, the internal and external environments may affect juvenile delinquencies. According to Akhter et al. [19], the lack of parental supervision and discipline to monitor their children’s activities outside the home and their limited income are socio-economic factors of the family that influence the delinquency of the children. Their opinion is in line with research findings from Connoly et al. [20] which stated the low socio-economic status (SES) of a family is responsible for adolescent delinquent behavior.

In addition to the influence of the internal environment, the external environment also plays an important role as a cause of juvenile delinquency. According to Achakanalli and Kumbhar [21], the school environment contributes to the student’s personalities. They argue the lack of teacher supervision and the lack of discipline enforced by schools are two causes that increase the opportunities for students to play truant. Even in schools known for their discipline and qualified teachers not only in learning activities but also in supervising their students, student violence also occurs. This is inseparable from the tendency of norms that are implanted in schools it is not suitable for some students who come from families with low socio-economic status. This was stated by Bourdieu and Passeron (1990), cited in Manstead [22].

Based on the above arguments, this paper aims to determine the influence of the socio-economic family as a representation of the internal environment and students’ interaction at the school as a representation of the external environment on juvenile delinquency in Denpasar City. This paper assumes the family is an important factor in building the character and personality of adolescents and hypothesizes the socio-economic condition of the family and the school’s atmosphere will affect social interactions between adolescents as well their social behavior.

2. Methods
We designed the research by setting the high school (public and private) students in Denpasar City on the 2017/2018 academic year as much as 19 293 students as the population [12]. These students are spread across 8 public and 60 private high schools at Denpasar. A hundred and fifty students are proportionally selected with sample proportion based on the number of students at each school category.

Considering (1) the socio-economic conditions of the family, (2) the interaction of students at school, (3) the social interaction of teenagers, and (4) juvenile delinquency as the focus of this study are constructs that cannot measured directly, so the operationalization of the four constructs by compiling the indicators in the research instruments. Fig. 1 depicted the operationalization of the research variables with 5 tested hypotheses, namely:
H₁: The poor socio-economic condition of the family positively affects juvenile delinquency;
H₂: The lack of school’s attention to the psychological needs of students positively affects the level of juvenile delinquency;
H₃: Socio-economic conditions affect the social interaction of a teenager;
H₄: The atmosphere of association in school affects the social interaction of a teenager; and
H₅: The social interaction of a teenager influences acts of delinquency.

To test the hypotheses, we collected the data using a Likert scale questionnaire with the statements are stated in a closed-form on a 10-scale in which a value of 1 indicates the most negative perception and a value of 10 represents the most positive perception. Before the questionnaire was distributed, the validity of each item and the reliability of the instrument were examined. Finally, the hypotheses were tested using a quantitative approach.

Figure 1. The Operational Model

To examine the hypotheses on Fig. 1, we applied the structural equation model (SEM). SEM is a non-parametric statistical technique that groups to the multivariate statistical analysis. Refers to Bagozi and Yi [7] and Hair et al. [8], SEM is a second-generation multivariate technique and is used to test measurements, functional relationships, predictive abilities, and causal hypotheses on a set of latent variables. Besides, SEM is a statistical procedure that combines four classical statistical techniques, such as path analysis, correlation, regression, and factor analysis [9].
3. Results and Discussion
3.1. Respondents’ Profiles
As aforementioned, 150 high school students at Denpasar were chosen as the respondents through a proportional random sampling technique. Table 1 showed the demographic profiles of the respondents.

Table 1. The demographics’ profiles

| Attribute       | Values | Percentages | Attribute       | Values | Percentages |
|-----------------|--------|-------------|-----------------|--------|-------------|
| Sex             | Male   | 57.1        | Number of       | ≤ 2    | 71.3        |
|                 | Female | 42.9        | siblings        | ≥ 3    | 28.7        |
| Age             | 15 years old | 21.5      | Residencial     | Parent’s house | 83.0    |
|                 | 16 years old | 52.5      | Status          | Rent house     | 11.6    |
|                 | 17 years old | 22.4      | Family’s house  | 3.4     |
|                 | 18 years old | 3.6       | Others          | 2.0     |
| Religion        | Hindu  | 83.7        | Parents’ Job    | Private employee | 44.2    |
|                 | Islam  | 10.8        | Entrepreneur    | 23.1    |
|                 | Catholic | 1.5       | Government employee | 20.4    |
|                 | Protestant | 2.7      | Teacher/Lecturer | 1.4     |
|                 | Buddha | 1.3         | Others          | 10.9    |

3.2. Results
Before we collect the data, we examine the items validities and construct reliability of our questionnaire by distributing it to 30 high school students who did not belong to the members of the designed sample. An item is valid to be a reflective indicator of a construct if its correlation coefficient $\geq 0.30$ and its sign accords with the other correlation coefficients [13]. The construct itself is considered reliable when its Cronbach $\alpha$ coefficient—a measure of construct reliability, is $\geq 0.7$ [14] or $\geq 0.6$ [15]. The validity and reliability test are listed in Table 2.

Table 2. The result of validity and reliability test using SPSS software

| Construct | Indicators | $\rho$ Coef. | Construct | Indicators | $\rho$ Coef. |
|-----------|------------|--------------|-----------|------------|--------------|
| Socio     | FAM1       | Harmonious relationship | 0.653     | School     | SCH1         | School rules | 0.518 |
| Economic  | FAM2       | Parents attention | 0.552     | Environment | SCH2        | Teachers attention | 0.582 |
| $\alpha = 0.813$ | FAM3 | Family support on hobbies | 0.620 | $\alpha = 0.879$ | SCH3 | Discrimination treatment | 0.726 |
| FAM4      | Family discipline | 0.664 | SCH4 | Learning facilities | 0.824 |
| FAM5      | Size of family | 0.594 | SCH5 | Sport facilities | 0.779 |
| FAM6      | Time for interaction | 0.465 | SCH6 | Counseling time | 0.703 |
| Social    | INT1       | Associate friend | 0.541 | Perception | JUN1 | Harming others | 0.715 |
| Interact  | INT2       | Age difference interaction | 0.577 | of Juvenile | JUN2 | Endanger others | 0.818 |
| $\alpha = 0.656$ | INT3 | Social media interaction | 0.572 | Delinquency | JUN3 | Difficult to advise | 0.769 |
|           |            |              |           | $\alpha = 0.907$ | JUN4 | Feeling uncomfortable | 0.772 |
|           |            |              |           |              | JUN5 | Lack of worship | 0.747 |

Note:
$\rho$ represents the total-item correlation coefficient
$\alpha$ represents the Cronbach coefficient
Table 2 shows all constructs have Cronbach’s coefficient $\geq 0.60$ as the lowest threshold. In addition, by observing all the $\rho$ coefficients are greater than 0.3, all indicators of each construct are valid. Based on these results, the questionnaire can be used to collect the final data.

An evaluation of the causality between constructs on Fig. 1 is conducted by constructing a variance-based structural equation model (VB-SEM). Generally, a structural equation model is composed of two models [8, 10, 11], namely:

(i) **Measurement model.** This model analyzes the causal relationship between latent variables and their manifest variables/indicators. This model is also known as the outer model;

(ii) **Structural model.** This model is a model that describes the relationship between latent variables in SEM. This model is also known as the inner model or inner relations and substantive theory.

To evaluate the causality of a construct with its reflective items, several measures have to evaluate, including (a) composite reliability (CR), average variance extracted (AVE), and discriminant validity (DV) values. CR values, along with Cronbach’s $\alpha$ coefficients and $\rho_A$; is a measure of internal consistency among the reflective items of the corresponding construct. According to Hair et al. [8], to obtain the internal consistency, $CR \geq 0.708$ and $AVE \geq 0.500$. Furthermore, it is also recommended that the reliability of indicators be examined. The reliability of a reflective item is fulfilled if its outer loading value is significant at the selected test level and is exceeding 0.708 as the lowest threshold. Using these criteria, the quality of measurements on latent with reflective indicators is carried out.

Applying SmartPLS 3.0 we found 3 out of 20 indicators as depicted in Fig. 1 did not qualify to use. These indicators are FAM5, FAM6, and SCH1. The final measurement model, after these indicators were eliminated, is listed in Table 3. All constructs know have criteria exceeding the lowest threshold. Besides, each reflective item has a significant outer loading value and this value exceeding 0.708 which is commonly used as the lowest threshold. Based on this result, the analysis of the inner model can be done and the result is depicted in Fig. 2.

**Table 3.** The final result of measurement model

| Construct   | Criterion | Code | Outer Loading | $p$-Value | Construct   | Criterion | Code | Outer Loading | $p$-Value |
|-------------|-----------|------|---------------|-----------|-------------|-----------|------|---------------|-----------|
| Socio       | $R^2 = -$ | FAM1 | 0.830         | 0.000     | School      | $R^2 = -$ | SCH2 | 0.701         | 0.000     |
| Economic    | AVE = 0.639| FAM2 | 0.803         | 0.000     | Environment | AVE = 0.622| SCH3 | 0.708         | 0.000     |
|             | CR = 0.876| FAM3 | 0.782         | 0.000     |             | CR = 0.891| SCH4 | 0.845         | 0.000     |
|             |           | FAM4 | 0.780         | 0.000     |             |           | SCH5 | 0.883         | 0.000     |
|             |           |      |               |           |             |           | SCH6 | 0.791         | 0.000     |
| Social      | $R^2 = 0.375$| INT1 | 0.756         | 0.000     | Perception  | $R^2 = 0.251$| JUN1 | 0.726         | 0.000     |
|             | AVE = 0.609| INT2 | 0.866         | 0.000     | of Juvenile | AVE = 0.719| JUN2 | 0.834         | 0.000     |
|             | CR = 0.891| INT3 | 0.711         | 0.000     | Delinquency | CR = 0.927| JUN3 | 0.915         | 0.000     |
|             |           |      |               |           |             |           | JUN4 | 0.872         | 0.000     |
|             |           |      |               |           |             |           | JUN5 | 0.879         | 0.000     |

Source: Primary data (2018)
3.3. Discussion

Fig. 2 shows one direct relationship (H5) is not significant, two are significant at test level of 5 percent (H2) and 10 percent (H3), and the other two demonstrated very significant relationship (H1 and H4). On its position as an exogenous construct, families’ socio-economic as well as the school environment demonstrate a significant effect on juvenile delinquency at Denpasar with an effect as much as 0.304 and 0.249, respectively. However, different facts are shown by these two exogenous constructs toward social interaction. The school environment has greater influence (0.468)—twice as large when compared to the effect of families’ socio-economic background (0.233). There are indications that the social interaction of adolescents at Denpasar is more determined by the atmosphere of their school than by the socio-economic conditions of their families.

This study justifies the vital role of parents and/or teachers in schools for guiding their children and/or students so that they remain on the ‘right track’ according to the ethics or norms that are believed by the community. The respondents of this study argue the influence of the socio-economic family exceeds the influence of the learning environment at school. This finding is in line with other research [5, 6, 15, 16] which states that there is a positive and significant relationship between family social functions, learning achievement, and juvenile delinquency.

4. Conclusion

This essay concludes the disruption of family functions and an inappropriate role of the school environment, both as a ‘growing medium’ for norms and ethics of adolescents lead to a significant rise in juvenile delinquency. Harmonious relationships between family members as
a reflective indicator of the socio-economic condition of the family are the largest contributor to the significance of juvenile delinquency at Denpasar City. Teenagers who come from families whose interpersonal relationships are not so harmonious with the lack of attention and affection demonstrated by their parents have a great chance of taking actions that are categorized as acts of juvenile delinquency.

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