

THE IMPACT OF LEGAL AND EXTRA-LEGAL FACTORS ON SEVERITY OF JUDGES' SENTENCING REGARDING NARCOTICS OFFENDERS

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ABSTRACT

This study attempts to explain how judges' sentences vary in response to legal and extralegal factors of drug offenders. The selection of narcotics offenders as the object of research was driven by the fact that the proportion of narcotic prisoners reached 45% of the total prisoners living in correctional institutions in Indonesia. The variable studied in this study is the recidivism factor among drug offenders, also known as one of the legal factors in the discussion of this study. The use of regression analysis of the Log-Level model gives results that mostly coincide with previous research that legal factors significantly influence judges' decisions. However, the empirical evidence shows that extralegal factors such as the offender's role, gender, religion, and place of birth reveal different facts from previous research conducted abroad. This study found that Indonesian judges sentence women offenders of Indonesian drug crimes longer than other judges abroad, so further research is needed to examine the existence of stigmatization. This study acknowledges the limitations related to ethnic data as one of the essential extralegal factors, the demographic situation in each province, and the characteristics of judges, namely, age, educational background, and

religion, as factors that determine decisions. Therefore, this model can be improved in future research. Using ordinary least squares (log level regression) gives results that mostly agree with previous studies.

Keywords: judge sentencing, legal factors, extralegal factors, narcotics offenders.

INTRODUCTION

A judge is a person responsible for determining what the best punishment for lawbreakers is. When making a fair decision in the judicial system, judges must take many considerations into account, either from the law aspect or from the offenders' expression of guilt.¹ In the rational choice theory in economics, the critical component of the sentence is the capability of the judge to collect information about the offenders, predict the possible incident in the future, measure the benefits and drawbacks of imposing a sentence, and subsequently choose the best alternative sentence for specific cases.²

According to the criminology theory of punishment, the purpose of a judge is to deliver a sentence while meeting the aspects of retribution, general or specific deterrence, incapacitation, and rehabilitation.³ In line with the economic perspective, punishment is designed to impose a greater cost to offenders—if they are arrested—compared to the advantages of committing the crime.⁴

¹ Wistrich, A. J., Rachlinski, J. J., & Guthrie, C. (2015). Heart versus head: Do judges follow the law or follow their feelings? *Texas Law Review*, 93(4), 855–923.

² Ulen, T. S. (2013). Rational choice theory in law and economics. In *Encyclopedia of law and economics* (Vol. 27, Issue 1, pp. 790–818).

³ Beccaria, C. M. di, & Davies, R. (1995). On Crimes and Punishments and Others Writings. In R. Geuss & S. Quentin (Eds.), *Beccaria: 'On Crimes and Punishments' and Other Writings* (pp. 1–86). Cambridge University Press, London.

⁴ Becker, G. S. (1968). Crime and punishment: An economic approach. In *The economic dimensions of crime* (pp. 13–68). Palgrave Mcmillan, London; Bentham, J. (1781). *An Introduction to the Principles of Morals and Legislation*. BLTC Research;

In Indonesia, during the period from 2015 to 2019, the government expenditure on correctional institutions fluctuated, amounting to USD 310 million, USD 369 million, USD 322 million, USD 356 million, and USD 419 million in 2015, 2016, 2017, 2018, and 2019, respectively.⁵ However, the fluctuating budget was not accompanied by a fluctuating number of prisoners. On the contrary, the number of prisoners continued to increase during this period and as many as 63% of the inmates were drug-related offenders.⁶

Many studies focus on all types of crime as the subject of their research, and the findings show that judges order more severe punishments for recurrent offenders that commit crimes within a year or less.⁷ However, another study reveals that judges punish first-time offenders with longer prison terms compared to experienced offenders.⁸ Therefore, this study will focus on Indonesian drug-related crimes and recurrent offenders for the following reasons: (a) the significant share and distribution of narcotics inmates in Indonesia's correctional facilities,⁹ (b) the regulation that obligates the judge to punish more severely for recurrent offenders rather than first-time

Cullen, F. T., Jonson, C. L., & Nagin, D. S. (2011). Prisons Do Not Reduce Recidivism: The High Cost of Ignoring Science. *Prison Journal*, 91(3), 48S-65S; Pindyck, R. S., & Rubinfeld, D. L. (2013). *Microeconomics* (D. Battista (ed.); 8th Editio, Issue c). Pearson Education Inc.

⁵ Ministry of Finance. (2018). RKAKL DIPA. Direktorat Jenderal Anggaran. <http://www.anggaran.kemenkeu.go.id/in/home>, accessed 05 January 2020

⁶ Directorate General of Correction. (2018). The Latest Data of Inmates. Sistem Database Pemasyarakatan <http://smslap.ditjenpas.go.id/public/grl/current/monthly/year/2019/month/7> accessed 05 January 2020.

⁷ Mears, D. P., Cochran, J. C., Bales, W. D., & Bhati, A. S. (1973). Recidivism and Time Served in Prison. *Journal of Criminal Law and Criminology*, 106(1 (Winter 2016)), 83–124.

⁸ Vigorita, M. S. (2002). What you don't know can hurt you: First-time offenders and sentence severity. *The Justice Professional*, 15(2), 75–86.

⁹ Please see this.⁶

offenders,¹⁰ and (c) a higher probability of criminals dealing in illicit drugs to re-offend.¹¹

This study explores the factors that influence judges' behavior in drug case sentencing. The research begins with the question of how recidivism and other factors affect judges' decisions regarding drug-related offenders in Indonesia.

LITERATURE REVIEW

Judge decision making, rationality, bounded rationality

Judges are not independent actors in the criminal justice system; they act on behalf of the government. According to the principal-agent theory in economics, the judge is recognized as the agent, while the government is the principal.¹²

However, in the judicial court itself, the judge behaves as a rational agent¹³ who takes many decisions and describes the non-market judicial process as a market situation¹⁴. Judges think logically to estimate the probability and utility and create an accurate sentence based on the results of the estimation.¹⁵

Furthermore, judges experience bounded rationality as well. This occurs when judges face pressure from the principal to reduce the crime on the one hand, and there is insufficient knowledge of the defendant's information on the other. Thus, the sentencing disparity is initiated

¹⁰ Sutton, J. R. (2013). Symbol and substance: Effects of California's three strikes Law on Felony sentencing. *Law and Society Review*, 47(1), 37–72.

¹¹ Cook, A., & Haynes, S. H. (2020). Imprisonment pains, reentry strains, and perceived likelihood of reoffending of reoffending. *Criminal Justice Studies*, 1–17.

¹² Epstein, L., Landes, W. M., & Posner, R. A. (2013). *The Behavior of Federal Judges: A Theoretical & Empirical of Rational Choice*. Harvard University Press.

¹³ Mankiw, G. N. (2008). *Principle of Microeconomics* (J. E. Thomas & K. Yanos (eds.); 5e ed., Issue c). Cengage Learning.

¹⁴ Please see this.²

¹⁵ Lorkowski, J. A. (2003). *Bounded Rationality in Decision Making Under Uncertainty: Towards Optimal Granularity* (Issue Mm). Springer International Publishing.

wherein the judge's decision-making process is a combination of the rationality choice and bounded rationality models.¹⁶

Moreover, judges' decisions regarding drug criminals can be explained using behavioral economics models, namely, the rational choice model¹⁷ and bounded rationality model.¹⁸ Judges collect as much information as possible to dole out accurate sentences aimed at maximizing social welfare (i.e., safety, certainty, and law enforcement). However, it is almost impossible to combine and understand all the information regarding the offenders in a predetermined period.¹⁹

Therefore, judges refer to alternatives of choice that are easily learned and applied and tend to be practical rather than theoretical.²⁰ This principal agency model also implies that the government issues a legal code to control asymmetric information and moral hazards conducted by the judges to establish a better performance of law enforcement as well as build good governance.²¹

According to Micle et al. (2013), in the process of decision-making, judges consider two main factors in determining a sentence. These are legal factors (the seriousness of the offenses, the maximum limit of punishment, and mitigating or aggravating factors) and extralegal factors (social, psychological, and economic factors). Correspondingly, Kim, Spohn, and Hedberg (2015) stated that judges with different jurisdictions have different perceptions about the

¹⁶ Iles, G., Bumphus, V. W., & Zehel, L. (2011). Assessing the relevance of legal and extralegal factors in felony drug sentencing: The case of Michigan. *Criminal Justice Studies*, 24(3), 291–306.

¹⁷ Micle, M. I., Gabriel, O., & Säucan, D. Ș. (2013). Legal and Extralegal Factors Influencing Judge's Penal Decisions. *Procedia - Social and Behavioral Sciences*, 78, 697–701.

¹⁸ Simon, H. A. (1972). Theories of Bounded Rationality. In C. B. McGuire & R. Radner (Eds.), *Decision and Organization* (Vol. 1, pp. 161–176). North Holland Publishing Company.

¹⁹ Please see this.¹⁸

²⁰ Please see this.¹³

²¹ Ulum, as cited in Rusvalita, E., Komalasari, A., & Dewi, F. G. (2017). The Effect of the Implementation of Good Governance on Organizational Performance with the Implementation of the Whistleblowing System as a Moderating Variable at the Directorate General of Taxes. *Journal Accounting and Finance*, 22(1), 1–25.

philosophy of legal and extralegal factors; consequently, these different perceptions allow judges in one jurisdiction to give greater weight to a legal factor, while other judges in other jurisdictions give lesser importance to the same factor and consider extralegal factors more critical.

Extralegal and legal factors and sentencing disparity

Previous studies have observed several disparities between sentencing influenced by extralegal factors. For instance, gender disparities often lead to harsher punishment for male offenders in comparison with female offenders.²² The extralegal variable of age drives judges to be more lenient with older offenders.²³

Prior research has observed that the defendants' personal circumstances, such as family roles and employment, create variation in the sentences' severity.²⁴ The defendants' family roles, for instance, yield

²² Doerner, J. K., & Demuth, S. (2010). The independent and joint effects of race/ethnicity, gender, and age on sentencing outcomes in U.S. federal courts. *Justice Quarterly*, 27(1), 1–27; Doerner, J. K., & Demuth, S. (2014). Gender and Sentencing in the Federal Courts: Are Women Treated More Leniently? *Criminal Justice Policy Review*, 25(2), 242–269; Sorensen, T., Sarnikar, S., & Oaxaca, R. L. (2012). Race and gender differences under federal sentencing guidelines. *American Economic Review*, 102(3), 256–260; Starr, S. B. (2015). Estimating gender disparities in federal criminal cases. *American Law and Economics Review*, 17(1), 127–159; Ward, J. T., Hartley, R. D., & Tillyer, R. (2016). Unpacking gender and racial/ethnic biases in the federal sentencing of drug offenders: A causal mediation approach. *Journal of Criminal Justice*, 46, 196–206; Weissman, S. H., Busch, K. G., & Schouten, R. (2010). The Evolution of Terrorism from 1914 to 2014. *Behavioral Sciences & the Law*, 28(2), 211–223.

²³ Blowers, A. N., & Doerner, J. K. (2015). Sentencing outcomes of the older prison population: An exploration of the age leniency argument. *Journal of Crime and Justice*, 38(1), 58–76; Ryon, S. B., Chiricos, T., Siennick, S. E., Barrick, K., & Bales, W. (2017). Sentencing in light of collateral consequences: Does age matter? *Journal of Criminal Justice*, 53, 1–11; Smith, M. S., & Schriver, J. L. (2018). Judges' sentencing decisions with older offenders. *Psychology, Crime and Law*, 24(2), 105–116; Steffensmeier, D., Kramer, J., & Ulmer, J. (1995). Age differences in sentencing. *Justice Quarterly*, 12(3), 583–602.

²⁴ van Wingerden, S., van Wilsem, J., & Johnson, B. D. (2016). Offender's Personal Circumstances and Punishment: Toward a More Refined Model for the Explanation of Sentencing Disparities. *Justice Quarterly*, 33(1).

a decrease in the length of imprisonment for defendants who serve as the breadwinners of the family. However, single and married offenders are treated equally.²⁵

The religion of the offenders has become a concern in several studies; for example, Spalek (2011) reported that the imbalance of judicial decision-making between Christian and other minority religions exists in countries with a majority Christian population. On the contrary, Miller, Maskaly, Green, and Peoples (2011) found that the beliefs of the defendants indirectly influenced the sentencing outcome. Furthermore, another extralegal factor that has become the concern of studies is the education of the offenders since findings show different outcomes; for instance, Van Slyke and Bales (2012) and Maddan (2012) revealed that the judges were more lenient with educated criminals. Nevertheless, some studies found that the sentencing outcome becomes more severe for educated offenders over the years²⁶ and female street offenders are punished more leniently rather than well-educated female offenders.²⁷

Moreover, compared to the impact of extralegal factors, legal factors may lead judges to dole out a blended, harsher sentence to the defendants.²⁸ In line with these findings regarding the legal and extralegal factors of defendants, the following hypotheses are conceived:

²⁵ Freiburger, T. L. (2009). The Effects of Gender, Family Status, and Race on Sentencing Decisions. *Behavioral Sciences & the Law*, 28(2), 378–395.

²⁶ Logan, M. W., Morgan, M. A., Benson, M. L., & Cullen, F. T. (2019). Coping with Imprisonment: Testing the Special Sensitivity Hypothesis for White-Collar Offenders. *Justice Quarterly*, 36(2), 225–254.

²⁷ Van Slyke, S., & Bales, W. D. (2013). Gender dynamics in the sentencing of white-collar offenders. *Criminal Justice Studies*, 26(2), 168–196.

²⁸ Please see this,¹⁷ and this¹⁰; Brown, J. M., & Sorensen, J. R. (2014). Legal and Extra-Legal Factors Related to the Imposition of Blended Sentences. *Criminal Justice Policy Review*, 25(2), 227–241 <https://doi.org/10.1177/0887403412465431>; Reitler, A. K., Sullivan, C. J., & Frank, J. (2013). The Effects of Legal and Extralegal Factors on Detention Decisions in US District Courts. *Justice Quarterly*, 30(2), 340–368.

- Hypothesis 1 : With all the variables controlled, legal factors will likely have a more substantial impact on predicting the severity of the sentencing.
- Hypothesis 2 : Controlling for legally relevant factors, the judge will impose harsher sentences for the repeated offenders.
- Hypothesis 3 : Controlling for extralegal variables, cities, and the religion of the defendants might indirectly influence the judge's sentencing.

Drug-related crime sentencing

Many studies have examined the overall sentencing in criminal cases.²⁹ Hilinski-Rosick et al. (2014) argued that research on particular offenders is necessary to explore the different effects of legal and extralegal factors on different types of crimes. Therefore, the current study attempts to research drug-related offenders. Moreover, the selection of drug cases in this study is based on prior research by Schulhofer, as cited in Iles et al. (2011) that claimed drug cases constitute as a distinctive crime category due to five interconnected factors, including (a) obligatory minimum sentence, (b) the level of severity, (c) quantity of evidence-based guidelines, (d) relevant standard of behavior, and (e) the imbalance of punishment among the levels of offense.

In fact, the Indonesia Narcotic Law (2009) mentioned some ways of treating drug-related crimes, offering solutions such as diversion, rehabilitation, and imprisonment. Nevertheless, diversion and rehabilitation methods seem uncommon and inconsistent.³⁰ Thus, drug-related crimes are also considered as punitive in nature.³¹

²⁹ Please see this,²⁵ and this.³⁰ Lim, C. S. H., Silveira, B. S., & Snyder, J. M. (2016). Do judges' characteristics matter? ethnicity, gender, and partisanship in texas state trial courts. *American Law and Economics Review*, 18(2), 302–357

³⁰ Lindsey, T., & Nicholson, P. (2016). *Drugs Law and Legal Practice in Southeast Asia* (Vol. 53, Issue 9). Hart Publishing Ltd. Oregon.

³¹ Lai, G., Fransiska, A., & Birgin, R. (2013). Drug Policy in Indonesia. *SSRN Electronic Journal*, 1–15.

Objectives of the study

There is abundant existing literature that has observed the impact of legal and extralegal factors on judicial decision-making for general offenses.³² Besides, a few studies have examined those factors for drug related-crime, and the focus of those studies has been on extralegal factors.³³ However, the research on the impact of legal factors on judges' sentencing for illicit drug crimes is limited. Therefore, the current study focuses on explaining how “the status of recurrent drug offenders” and other legal factors influence judges' verdicts in the Indonesian context. The extralegal factors will be examined later.

METHODOLOGY

Data and variables

This study will employ a quantitative method and utilize data from the *Sistem Database Pemasyarakatan* (SDP) or Correctional Database System and *Mahkamah Agung* (MA) or Supreme Court. SDP data consists of individuals convicted of crimes and living in Indonesian correctional facilities until March 2018. They may be sentenced to death, serve a lifetime sentence, or a short-term sentence ($n = 254,600$). However, since the self-calculation of SDP data revealed that 45% of these people were convicted of drug crimes,³⁴ it leads to the belief that illegal drug crimes can be considered as a distinctive category of crime.³⁵ Thus, this paper will merely focus on drug-related cases ($n = 112,000$). Furthermore, MA data contains information on the defendants' quantity of drug evidence that had been submitted during the judicial process ($n = 500,000$). These sources have been merged to obtain the final dataset ($n = 18,455$).

³² Please see this,²⁵ and this.³⁰; Miller, M. K., Maskaly, J., Green, M., & Peoples, C. D. (2011). The effects of deliberations and religious identity on mock jurors' verdicts. *Group Processes and Intergroup Relations*, 14(4), 517–532.

³³ Please see this,¹⁷; Mustafa, C., Malloch, M., & Hamilton Smith, N. (2020). Judicial perspectives on the sentencing of minor drug offenders in Indonesia: discretionary practice and compassionate approaches. *Crime, Law and Social Change*, 17.

³⁴ Please see this.⁶

³⁵ Please see this.¹⁷; Schulhofer, as cited in Iles et al.

The dataset combines information regarding incarceration sentencing based on both legally relevant factors and extralegal factors. Moreover, the dependent variable in the current study is the length of the sentence in months of incarceration, representing the judicial behavior toward drug criminals. Further, it includes several independent variables describing the stereotypes of offenders, as shown in Table 1 below.

Table 1. Description of Variables

Dependent variable	Description	Definition
Length of sentence	Period of incarceration in months	-
Independent variables		
<i>Legal variable</i>		
Role of defendants		
Producer	dummy variable	
Dealer	dummy variable	
Distributor	dummy variable	
Smuggler	dummy variable	
User	dummy variable	
Other	dummy variable	
Recidivism status	Categorical. No = 0, Yes = 1.	-
Frequency of reoffending	Categorical. Rate of conviction and living in correctional facilities.	0 = first-time; 1 = for two or more experiences living in prison.
Quantity of evidence	Continuous. Types of drug/substance in grams and milliliters.	41 types of drugs.
<i>Extralegal variable</i>		
Age	In years. Three-categorical dummy. Adults are the reference category.	Adult = 18–60; elderly = > 60; juvenile = 12–17.
Gender	Male = 0, Female = 1	-
Marital status	Four-categorical dummy variables. Single is the basic category.	Single; divorced; married.

Dependent variable	Description	Definition
Religion	Five-categorical dummy; Buddhism is the basic category.	Buddhism, Hinduism, Islam, Christianity, Confucianism.
Education	Three-categorical dummy. Elementary is the reference category.	Elementary/less; high school; under/postgraduate.
Provinces	Categorical dummy for 34 provinces in Indonesia.	-

This paper focuses on the “recidivism status” variable to represent the stigma faced by the repeated offenders among criminals. Later, if an offender is labeled as a recidivist, the observation goes into the following variable that describes the frequency of reoffending. Furthermore, for this research, recidivism is defined as the felon’s reconviction of crime with no follow-up period.

Methods and empirical model

To test the hypotheses, this study employs a log-level multiple regression model to perform a multiple regression analysis on the cross-sectional data that consists of continuous and categorical variables³⁶. Furthermore, to present empirical evidence, this study uses an estimation model as follows:

$$\begin{aligned} \log(sentence) = & \beta_0 + \beta_1 drug_1 + \dots + \beta_{39} drug_{39} + \delta_1 recidiv \\ & + \delta_3 dealer + \delta_4 distributor + \delta_5 smuggler + \delta_6 user \\ & + \delta_7 other + \delta_8 age + \delta_9 gender + \delta_{10} gender.user \\ & + \delta_{11} marital + \delta_{12} relig + \delta_{13} edu + \delta_{14} city + u \end{aligned}$$

In the above model,

sentence is the length of the sentence by the judge, *edu* is the level of education of defendants,

³⁶ Wooldridge, J. M. (2013). *Introductory Econometrics: A Modern Approach*. In *Introductory Econometrics: A Modern Approach (Fifth)*. South-Western, Cengage Learning.

recidiv is the recidivism factor of defendants, *city* is the birthplace of defendants,
a first-time or repeat offender,

producer, dealer, distributor, smuggler, user, and other are the role of the defendants in illegal
drug activities, β_0 is the constant value,

gender is male or female, $\beta_1, \beta_2, \dots \beta_{39}$ are the parameters,
age is the defendant's age, $\delta_1, \delta_2, \dots \delta_{14}$ are the additional
constant term for dummy variables

marital is the marital status of offenders, u is the error term
relig is the religion of the defendants,

DATA ANALYSIS

This study runs several tests to meet the classic assumptions of linearity. Hence, the logged lengths of sentences were applied to generate data similar to the normal distribution and to compensate for the age of defendants on the right-hand side of the model.³⁷ The Huber–White robust standard error was implemented simultaneously to deal with heteroscedasticity.

The only continuous independent variable in this model was the quantity of evidence. Therefore, there were 39 kinds of drugs listed. Almost all the drugs were measured in gram units, except tetrahydrocannabinol (gram and stem), urine tetrahydrocannabinol (mL), urine methamphetamine (mL), urine Methylenedioxy-Methamphetamine (MDMA) (mL), and methamphetamine solution (mL). The methamphetamine had the largest amount of evidence submitted for the judicial court ($n = 15,829$), followed by tetrahydrocannabinol ($n = 2,485$) and MDMA ($n = 823$) (see Table 2).

Table 2. Descriptive Statistics of Quantity of Evidence and Birthplace

No.	Variable	n	Percentage
<i>Quantity of evidence (gram)</i>			
1.	Methamphetamine	15,829	85.77
2.	Tetrahydrocannabinol (stem)	89	0.48
3.	Tetrahydrocannabinol (gram)	2,396	12.98

³⁷ Please see this.²⁵

No.	Variable	n	Percentage
4.	MDMA	823	4.46
5.	Pinazepam	2	0.01
6.	Alprazolam	62	0.34
7.	Clonazepam	30	0.16
8.	Lorazepam	8	0.04
9.	Estazolam	9	0.05
10.	Diazepam	5	0.03
11.	Nimetazepam	13	0.07
12.	Trihexyphenidyl	8	0.04
13.	Tramadol	9	0.05
14.	Dextromethorphan	3	0.02
15.	Carnophen	11	0.06
16.	Chloramphenicol	1	0.01
17.	Tobacco	20	0.11
18.	Mephedrone	2	0.01
19.	Epsilon	3	0.02
20.	Cocaine	3	0.02
21.	Psilocyn	2	0.01
22.	Heroin	13	0.07
23.	Piperazine	1	0.01
24.	AB fubinaca	6	0.03
25.	Etilon	2	0.01
26.	Methylphenyl	1	0.01
27.	Carisoprodol	4	0.02
28.	Mushroom	5	0.03
29.	Amylum	1	0.01
30.	Lactose	1	0.01
31.	Ketamine	1	0.01
32.	Ephedrine	3	0.02
33.	Urine tetrahydrocannabinol (mL)	19	0.10
34.	Urine methamphetamine (mL)	142	0.77
35.	Methamphetamine solution (mL)	2	0.01
36.	Methylone	1	0.01
37.	Urine MDMA (mL)	1	0.01
38.	Acetylfentanyl	1	0.01
39.	Precursor	1	0.01
40.	Celedryl	1	0.01
41.	Cathinone	1	0.01

Source: Sistem Database Pemasyarakatan (SDP), March 2018

This research used categorical dummy variables to deal with qualitative information in the dataset. This paper yielded six prominent

roles to accommodate those categories³⁸, the dealer,³⁹ the smuggler, and the distributor. Further, the user and the producer,⁴⁰ and others (the category that is not included in the previous categories).

The recidivism factor was coded into a dummy variable (0 = no re-offence, 1 = yes to re-offence). Later, the dummy frequency of offending interacted with the recidivism factor to explain if recidivism = 1, the number of times individuals were incarcerated in the correctional institution (0 = if it was the first time, 1 = if it was more than twice). Moreover, if the two factors were suspected of having multicollinearity, the frequency of reoffending was omitted.

This research divided the defendants' ages into three categories, namely, juvenile (12–17 years of age), adult (18–59 years of age), and elderly (> 60 years of age), based on the Ministry of Law and Human Rights decree.⁴¹ A dummy gender was coded as 0 = male, 1 = female. The marital status was recognized as a dummy variable and categorized into three types (0 = single, 1 = divorced, 2 = married). The present study categorized religion into five groups (0 = Islam, 1 = Christianity, 2 = Hinduism, 3 = Buddhism, and 4 = Confucianism). The

³⁸ Republic of Indonesia. (2009). Indonesia Narcotics Law. Ministry of Law and Human Rights. https://peraturan.go.id/peraturan/index-lembaran-negara.html?LembaranNegaraSearch%5Bjenis_peraturan_id%5D=11e449f35c25e4d0b18e313231373039&LembaranNegaraSearch%5Bnomor%5D=35&LembaranNegaraSearch%5Btahun%5D=2009&LembaranNegaraSearch%5Btentang%5D=Indonesian+Narcotics+Law+2009. Accessed 28 October 2019.

³⁹ Please see this.³²

⁴⁰ Please see this.⁴¹

⁴¹ Republic of Indonesia. (2012). Juvenile Criminal Justice System. Ministry of Law and Human Rights. https://peraturan.go.id/peraturan/index-lembaran-negara.html?LembaranNegaraSearch%5Bjenis_peraturan_id%5D=11e449f35c25e4d0b18e313231373039&LembaranNegaraSearch%5Bnomor%5D=11&LembaranNegaraSearch%5Btahun%5D=2012&LembaranNegaraSearch%5Btentang%5D=. accessed 28 October 2019; Republic of Indonesia. (2018). Ministerial Decree on The Treatment for Elderly Prisoners. Ministry of Law and Human Rights. https://peraturan.go.id/peraturan/index-permen.html?PermenSearch%5Binstitution_id%5D=27&PermenSearch%5Btentang%5D=&PermenSearch%5Bnomor%5D=32&PermenSearch%5Btahun%5D=2018&PermenSearch%5Bnomor_bn%5D=&PermenSearch%5Btahun_bn%5D=. accessed 28 October 2019

incorporation of Protestants and Catholics was based on the assumption that Protestants are one of the denominations of Christianity.⁴² The education level was coded into three groups (0 = elementary, 1 = high school, and 2 = under/postgraduate). This paper also included a dummy for the 33 provinces in Indonesia as the closest approach to representing the various birthplaces of the defendants (see Table 3).

Table 3. Descriptive Statistics of Birthplace

No.	Variable	n	Percentage
<i>Birthplace</i>			
1.	Aceh	1,620	8.78
2.	Bali	488	2.64
3.	Banten	425	2.3
4.	Bengkulu	236	1.28
5.	D.I. Yogyakarta	56	0.3
6.	DKI Jakarta	577	3.13
7.	Gorontalo	60	0.33
8.	Jambi	457	2.48
9.	Jawa Barat	720	3.9
10.	Jawa Tengah	699	3.79
11.	Jawa Timur	1,286	6.97
12.	Kalimantan Barat	387	2.1
13.	Kalimantan Selatan	1,607	8.71
14.	Kalimantan Tengah	729	3.95
15.	Kalimantan Timur	1,514	8.2
16.	Kepulauan Bangka Belitung	113	0.61
17.	Kepulauan Riau/Kepri	93	0.5
18.	Lampung	434	2.35
19.	Maluku	49	0.27
20.	Maluku Utara	104	0.56
21.	Nusa Tenggara Barat	219	1.19
22.	Nusa Tenggara Timur	16	0.09
23.	Papua	55	0.3
24.	Papua Barat	9	0.05
25.	Riau	1,592	8.63
26.	Sulawesi Barat	108	0.59
27.	Sulawesi Selatan	805	4.36
28.	Sulawesi Tengah	15	0.08
29.	Sulawesi Tenggara	130	0.7
30.	Sulawesi Utara	9	0.05

⁴² Martin, D. A. (1962). The Denomination. The British Journal of Sociology, 13(1), 1–14.

No.	Variable	n	Percentage
31.	Sumatera Barat	655	3.55
32.	Sumatera Selatan	2,187	11.85
33.	Sumatera Utara	1,001	5.42

Source: Sistem Database Pemasyarakatan (SDP), March 2018

RESULT AND DISCUSSION

Findings

Table 4 given below describes the number of observations and percentages of all variables used in the analysis. As indicated in the table, the drug offenders were mostly convicted for their role as distributors (44.7%) and users (36.39%) in drug-related crimes. Moreover, most drug offenders were first-time offenders (87.75%) between 18–59 years of age (99.23%) and had completed a high school education as their highest level of education.

Table 4. Descriptive Statistics (n = 18,455)

Variable	n	Percentage
Length of the sentence (mean)	68.64	
Role of defendants		
Dealer	2,804	15.19
Other	346	1.87
Smuggler	285	1.54
Distributor	8,250	44.7
User	6,715	36.39
Producer	55	0.3
Recidivism status (description in Table 1)		
No	16,195	87.75
Yes	2,260	12.25
Frequency of reoffending (description in Table 1)		
First-timer	16,329	88.48
More than once incarcerated	2,126	11.52
Age		
Juvenile	22	0.12
Adult	18,312	99.23
Elderly	121	0.66
Gender		

Variable	n	Percentage
Male	17,155	92.96
Female	1,300	7.04
Marital status		
Single	6,400	34.68
Widow	1,554.00	8.42
Married	10,501.00	56.90
Religion		
Buddhism	171	0.93
Hinduism	310	1.68
Islam	17,141	92.88
Christianity	826	4.48
Confucianism	7	0.04
Education level		
Under/postgraduate	633	3.43
Elementary/less	5,955	32.27
High school	11,867	64.3
Birthplace (see Table 3)		
Quantity of evidence (see Table 2)		

Source: Stata result

This data also reveals that the correctional institutions were inhabited by more men (92.96%) than women, and most of them were married. The drug offenders were mostly born in South Sumatra, Aceh, and South Kalimantan, with 11.85%, 8.78%, and 8.71% of the total offenders, respectively.

The effect of legal and extralegal factors on the severity of the judges' sentences was estimated using the log-level multiple regression model. To test the hypotheses, three models were applied. Model 1 observed the impact of legal variables on the length of the sentence, Model 2 examined the effect of extralegal variables on the length of sentence, and Model 3 inspected the combination of both variables on the judge's sentences. As can be seen in Table 5, the critical indicators of legal factors (i.e., recidivism, the role of defendants, and the quantity of evidence) are statistically significant in influencing the severity of judicial sentencing.

Table 5. Log-Linear Regression (Model 1: Legal Variable)

Length of the sentence	Coefficient (Coef.)	Robust Standard Error (SE)	
N	18,455		
Adjusted R ² (Adj. R ²)	0.109		
Intercept	3.935		
Recidivism Factor			
No ¹	-		
Yes	0.055	**	0.013
Role of defendants			
Dummy producer	0.196	**	0.067
Dummy dealer	0.157	**	0.014
Dummy distributor	0.262	**	0.012
Dummy smuggler	0.072	**	0.014
Dummy user	-0.238	**	0.011
Dummy other	0.133	**	0.022
Quantity of evidence (highest 10)			
Precursor	0.117	**	0.003
Carnophen	0.107	**	0.033
Alprazolam	0.016		0.05
Mephedrone	0.015	**	0.001
Tobacco	0.010		0.009
Ethylon	0.009	**	0
Dextromethorphan	0.007	**	0
Cocaine	0.006		0.045
Trihexyphenidyl	0.004	**	0
Epsilon	0.002	**	0.001

Source: Stata result

**p < .05

¹ = reference category

Consistent with the research conducted by Hilinski-Rosick et al. (2014), Model 1 revealed that repeated offenders received a 5.65% longer prison term than first-time offenders.

Separately from the legal factors, the model displayed in Table 6. shows the results from the estimation of extralegal factors only based on the judges' decisions.

Table 6. Log-Level Regression (Model 2: Extralegal Variables)

Length of the sentence	Coefficient	Robust SE	
N	18,455		
Adj R ²	0.045		
Intercept	3.056		
Juvenile ¹			
Adult	1.057	**	0.163
Elderly	1.011	**	0.187
Male ¹			
Female	-0.003		0.019
Single ¹			
Divorce	0.056	**	0.018
Married	0.045	**	0.01
Islam ¹			
Christianity	-0.002		0.027
Hinduism	-0.107	**	0.045
Buddhism	-0.212	**	0.102
Confucianism	0.045		0.14
Elementary ¹			
High school	-0.032	**	0.01
Graduate/postgraduate	-0.124	**	0.035
Aceh ¹ (five highest and lowest)			
Kalimantan Timur	0.163	**	0.022
Sumatera Utara	0.133	**	0.028
Riau	0.079	**	0.024
Kalimantan Barat	0.038		0.037
Kepulauan Bangka Belitung	0.015		0.055
Lampung	-0.312	**	0.041
Banten	-0.379	**	0.066
Maluku	-0.416	**	0.114
D.I. Yogyakarta	-0.837	**	0.116
Sulawesi Utara	-0.847	**	0.404

Source: Stata result

**p < .05

¹ = reference category

In this model, the value of the adjusted R-square was 0.045 less than its value in Model 1 ($\text{Adj.R}^2 = 0.109$). Offender stereotypes in this model, such as those involving age, marital status, education, and birthplace, showed a significant effect on the length of the sentence.

Besides, the finding concerning the education level was in agreement with Van Slyke and Bales' (2013) research since the results illustrated a less severe prison term for offenders who had attended tertiary or higher education. Educated criminals were incarcerated with an 11.66% reduction in their prison term. Furthermore, regarding the birthplace of the offenders, it was statistically significant that offenders who were born in the South Kalimantan (*Provinsi Kalimantan Selatan*), North Sumatera (*Provinsi Sumatera Utara*), and Riau provinces received the most severe incarceration terms, 17.7%, 14.2%, and 8.22% longer than other offenders, respectively. On the other hand, those who were born in the North Sulawesi (*Sulawesi Utara*), Yogyakarta, and Maluku provinces received a greater reduction in their period of imprisonment by 57%, 56.7%, and 34%, respectively.

Besides, the religious factor exhibited some insignificant values as well; however, in Indonesia's case, this finding did not support the previous research by Miller et al. (2011) and Spalek (2011) since the minority religions experienced a less harsh sentencing treatment. Buddhists were punished leniently with a 19% reduction of the sentence period, followed by Hindus with a 10.14% shorter incarceration term. Considering several significant factors in the first and second models, the third model (Model 3) was applied to see how the combination of the factors mentioned above influenced the judges' verdict. The findings have been tabulated in Table 7.

Table 7. Log-Linear Regression (Model 3: Includes All Variables)

Legal factors	Extralegal factors
N = 18,455	
Adj R ² = 0.138	

Legal factors			Extralegal factors		
Length of sentence	Coef.	Robust SE	Length of sentence	Coef.	Robust SE
Recidivism factor			Juvenile ¹		
No ¹			Adult	0.947**	0.162
Yes	0.072**	0.013	Elderly	0.87**	0.185
Role of defendants			Male ¹		
Dummy producer	0.164**	0.066	Female	0.004**	0.021
Dummy dealer	0.137**	0.015			
Dummy distributor	0.253**	0.012	Gender x dummy	0**	0
Dummy smuggler	0.078**	0.014	Female x dummy	-0.003**	0.037
Dummy user	-	0.011			
Dummy other	0.103**	0.023	Single ¹		
			Divorce	0.037**	0.017
Quantity of evidence (10 highest coef.)			Married	0.03**	0.01
Precursor	0.122**	0.007			
Carnophen	0.119**	0.036	Islam ¹		
Alprazolam	0.057**	0.043	Christianity	-0.003**	0.025
Tobacco	0.028**	0.011	Hinduism	-0.078**	0.039
Mephedrone	0.014**	0.001	Buddhism	-0.178**	0.096
Ethylon	0.009**	0.001	Confucianism	0.14**	0.099
Dextromethorphan	0.007**	0			
Cocaine	0.007**	0.046	Elementary ¹		
Trihexyphenidyl	0.004**	0	High school	-0.03**	0.009
Epsilon	0.002**	0.001	Grad/postgraduate	-0.111**	0.032
			Aceh ¹ (5 th highest/lowest coef.)		
			Kalimantan Timur	0.068**	0.021
			Sumatera Utara	0.061**	0.027
			Kalimantan Barat	0.023**	0.036
			Kep. Bangka	0.023**	0.053
			Bali	0.009**	0.038
			Papua Barat	-0.269**	0.211
			Maluku	-0.328**	0.097
			Banten	-0.405**	0.065
			D.I. Yogyakarta	-0.704**	0.107
			Sulawesi Utara	-0.771**	0.4

Source: Stata result

*p < .1; **p < .05,

¹ = reference category

The adjusted coefficient of determination ($\text{Adj. } R^2 = 0.138$) in Model 3 demonstrated the more significant influence of independent variables on the length of the sentence for both legal and extralegal variables. Both these variables remained statistically significant in this model. The results were not vastly different from Model 1 or Model 2. However, an interesting finding occurred in Model 3 when female offenders (that were still not significant in this model) were punished 0.4% more harshly than male offenders. Due to the information described above, the following discussion will focus on Model 3. The evidence found in Model 3 illustrates that the status of recurrent offenders as well as the role of defendant as producer, dealer, distributor, smuggler of the drugs highly influences the judge's sentencing. Likewise, narcotics precursors have a significant effect on the severity of the judge's decision. Several extralegal factors also showed a significant level of confidence, such as adult offenders, gender in interaction with a dummy variable, both divorced and married person, both high school or graduate education of offenders, and lastly, the offender who originated from East Kalimantan and North Sumatera province.

DISCUSSION

The current research aimed to obtain more information about how recidivism and other legal and extralegal variables affect the judges' sentencing decisions regarding narcotic offenders. As predicted in this paper's first hypothesis, the findings indicate that legal factors have a more substantial impact on predicting the judges' severity of sentencing compared to extralegal factors ($\text{Adj. } R^2 \text{ model 1} > \text{Adj. } R^2 \text{ model 2}$). Besides, the second hypothesis is also relevant to the finding that recurrent offenders' statuses affect an increase in their incarceration term by as much as 7.46% ($b = 0.072, p < 0.05$).

Additionally, defendants with more serious drug-related roles than others may find an increase in the period of incarceration. Drug producers received an 18.8% additional incarceration term ($b = 0.164$,

$p < 0.05$), distributors were given a 28.8% extended prison term ($b = 0.253$, $p < 0.05$), and drug users received the most lenient sentences with a reduction in their prison sentences by 19.7% ($b = 0.219$, $p < 0.05$).

Furthermore, defendants found the precursors of producing, carrying, or possessing narcotics received the most severe punishment, with as much as a 12.97% extension of the imprisonment period ($b = 0.122$, $p < 0.05$), followed by the involvement of Carnophen 12.5% ($b = 0.119$, $p < 0.05$). This is related to Indonesian judges' consideration that precursors count as more serious drug evidence compared to other forms of evidence (see Table 8).

Table 8. Comparison between Model 1 and Model 3

Model 1	Coef.	Robust SE	Model 2	Coef.	Robust SE
Precursor	0.117**	0.003	Precursor	0.122**	0.007
Carnophen	0.107**	0.033	Carnophen	0.119**	0.036
Alprazolam	0.016	0.05	Alprazolam	0.057	0.043
Mephedrone	0.015**	0.001	Tobacco	0.028**	0.011
Tobacco	0.010	0.009	Mephedrone	0.014**	0.001
Ethylon	0.009**	0	Ethylon	0.009**	0.001
Dextromethorphan	0.007**	0	Dextromethorph	0.007**	0
Cocaine	0.006	0.045	Cocaine	0.007	0.046
Trihexyphenidyl	0.004**	0	Trihexyphenidyl	0.004**	0
Epsilon	0.002**	0.001	Epsilon	0.002**	0.001

Source: Stata result

** $p < .05$

However, this consideration varies among countries. In South Korea, methamphetamine is regarded as a more severe substance compared to others;⁴³ heroin and cocaine are considered the most serious in Vietnam.⁴⁴

⁴³ Lee, M., Ulmer, J. T., & Park, M. R. (2011). Drug sentencing in South Korea: The influence of case-processing and social status factors in an ethnically homogeneous context. *Journal of Contemporary Criminal Justice*, 27(3), 378–397.

⁴⁴ Please see this.³²

This empirical finding may be explained by two different decision-making assumptions in behavioral economics, as mentioned by Manski (2013). The first is the outcome optimization assumption, according to which the judges know that if they impose longer prison sentences or dole out harsher punishments to potential recurrent offenders, optimal results will occur. In other words, such sentences aim for the reduction of recurrent drug offenses and prevent recidivism from happening. The second is the skimming assumption. The model assumes that due to the judges' limited information processing capacity or bounded rationality, the judges will use visible facts rather than facts as a whole, creating a scale from higher to lower risk of recidivism and the magnitude of the harmful impact on society. Judges, in this assumption, favor punishing offenders based on concrete evidence and follow fixed regulations to minimize uncertainty and the risk of errors or sentence biases (Ward et al., 2016). This problem could happen due to the lack of detail in the Indonesian narcotics law to explain the relationship between the weight of evidence and length of incarceration, compared to the policies of neighboring countries, such as Singapore's Misuse of Drugs Act (Lindsey & Nicholson, 2016).⁴⁵

Moreover, the findings for extralegal variables contain interesting facts. Some variables support prior research;⁴⁶ however, others contradict previous studies.⁴⁷

To begin with, age influences the length of the sentence significantly. Younger offenders receive the least leniency, followed by older (1.38 times longer) and adult (1.58 times longer) offenders. The results are similar to the findings of prior studies by Smith and Schriver (2018) and the Korean drug cases examined in Lee et al. (2011) study.

⁴⁵ Please see this.²⁴ Ward et al. (2016).

⁴⁶ Please see this,²⁵ and this,²⁹; Van Slyke, S., & Bales, W. D. (2012). A contemporary study of the decision to incarcerate white-collar and street property offenders. *Punishment and Society*, 14(2), 217–246.

⁴⁷ Please see this,³⁰ and this,³⁴; Freiburger, T. L. (2011). The Impact of Gender, Offense Type, and Familial Role on the Decision to Incarcerate. *Social Justice Research*, 24(2), 143–167.

The possible consideration of the judges' decision toward the defendants' age begins with the idea of externalities. Since correctional facilities in Indonesia suffer from overcrowding,⁴⁸ negative externalities exist. For instance, Drago, Galbiati, and Vertova (2011) mentioned issues such as the lack of private cells, rivalry in obtaining resources, and poor health services as well as illegal levies, crime-related information exchange, rude words among inmates, and coping with addiction inside the prison. Meanwhile, juvenile and older offenders were found to be prone to violent victimization, consequently leading to a deterioration of mental and physical health as well as a decrease in social welfare.⁴⁹ Therefore, both younger and elderly offenders were sentenced to a shorter period of imprisonment.

Women who are convicted of drug use are more likely to have a more severe pattern of drug consumption, experience domestic violence in their youth, and possess both mental and physical health issues compared to male prisoners.⁵⁰ This may become the reason behind the leniency shown to female drug users. As shown in Table 7, after the interaction, the result implies that women received less harsh sentences with a reduction of the incarceration period by as much as 0.3%. This situation leads to the assumption that the stereotyping of women occurs, particularly for those who are drug offenders. Probowati (2001) argued that stereotypes arise due to the perception of society that women will be mothers and become the first educators for their children. If these women are involved in the misuse of drugs, they are not eligible to educate the future generation. Therefore, harsher

⁴⁸ Directorate General of Correction. (2020). SMS Gateway System. Sistem Database Pemasarakatan. <http://smslap.ditjenpas.go.id/> (Directorate General of Correction, 2020). Accessed 05 January 2020.

⁴⁹ Maschi, T., Gibson, S., Zgoba, K. M., & Morgen, K. (2011). Trauma and life event stressors among young and older adult prisoners. *Journal of Correctional Health Care*, 17(2), 160–172.

⁵⁰ Tuchman, E. (2010). Women and addiction: The importance of gender issues in substance abuse research. *Journal of Addictive Diseases*, 29(2), 127–138.

punishments are applied, aiming at making them repent and regret their mistakes.⁵¹

Moreover, marital status displays a significant value, although there is not much difference between the sentence lengths given to married and divorced prisoners (married = 3.1%, divorced = 3.8%). This may happen due to a lack of information on the familial role of the defendants in this dataset, that is, whether defendants are the breadwinners for their families and have financially dependent children. This information may be a mitigating factor, as stated in prior studies.⁵²

The discussion of the influence of religious factors on the judges' sentencing begins with the Indonesian government's acknowledgment of five religions and one belief system as the official religions of the country. The people may be Muslims, Protestants, Catholics, Hindus, Buddhists, and Confucianists.⁵³ According to Statistics Indonesia (2010) on the religious demographics in Indonesia, Confucianism has the fewest followers (0.05%), followed by Buddhism (0.7%) and Hinduism (1.7%). Nevertheless, when Confucianist is sentenced for a drug-related crime, they suffer the longest sentence (15%), followed by Muslims (basis category) and Christians (-0.3%), correspondingly. This finding is similar to that by Miller et al. (2011), which points to the fact that the religious identity of the offender does not have a direct effect on judge verdicts. This fact also indirectly raises a connection to Chinese ethnics as they are the only followers of Confucianism. As Ananta finds (as cited in Suryadinata, (2015), although the majority of the Chinese populations have embraced Christianity and Buddhism, for most of the Chinese descendants in Indonesia, Confucianism is recognized as part of their Chinese identity (see Table 9).

⁵¹ Probowati, Y. (2001). *Requisitoir Public Prosecutor and Personality of Judicial Authorities in the Criminal Process in Indonesia* [Doctoral dissertation, Universitas Gajah Mada]. http://etd.repository.ugm.ac.id/home/detail_pencarian/103. Accessed 05 January 2020.

⁵² Please see this;²⁷ Bagaric, M. (2019). Redefining the circumstances in which family hardship should mitigate sentence severity. *UNSWLJ*, 42(1), 154–187.

⁵³ Ministry of Religious Affairs. (2016). Ministry of Religious Affair in Number. Public Relation Bureau. <http://www.kemenag.go.id>. Accessed 28 October 2019.

Table 9 Chinese Indonesians by Religion in the 2000 Census

Followers of religion	% among Chinese	% of the total population
Muslims	5.41	88.22
Christians	35.09	8.92
Buddhists	53.82	0.84
Hindus	1.77	1.81
Others	3.91	0.20
Total	100	100

Source: Aris Ananta, as cited in Suryadinata (2015).

Another interesting result in this study shows that Buddhists and Hindus significantly receive greater leniency during sentencing. Miller et al. (2011) have explained this result with caution, stating that (a) The judges are more likely to give a lenient sentence to offenders who have the same religion as the judges, and (b) In the context of social situation, the judges force themselves to create a decision based on rational (legal factors), which brings greater leniency for particular religions and indicates that the verdicts are not biased. Since the majority of judges have Islam and Christianity as their religions,⁵⁴ point (a) cannot explain the results as well as point (b) does.

The variable of the education level attained serves as the proxy to represent other stereotypes of criminals in illicit drug crimes. This research finding supports previous findings⁵⁵ and opposes Logan's finding (2019). The higher the educational attainment of the drug criminals, the fewer of them are incarcerated. Furthermore, the considerations behind the decisions are that (a) higher educational attainment is linked to better skills to pursue a more steady occupation, higher wage, wider employment network, and socio-economic stability,⁵⁶ and (b) Judges associate those identified by (a) as offenders

⁵⁴ Please see this.⁵⁵

⁵⁵ Please see this,⁴⁸; Franklin, T. W. (2017). Sentencing Outcomes in U.S. District Courts: Can Offenders' Educational Attainment Guard Against Prevalent Criminal Stereotypes? *Crime and Delinquency*, 63(2), 137–165.

⁵⁶ Bellair, P. E., & Kowalski, B. R. (2011). Low-skill employment opportunity and african American-white difference in recidivism. *Journal of Research in Crime and*

with lower risks of future reoffending and perceive them as less harmful to society.

Furthermore, sentencing outcomes vary across districts⁵⁷ as well as provinces in Indonesia. One of the arguments about the variation of sentencing outcomes is the judges' consideration regarding the philosophy of the seriousness of legal and extralegal factors in each province. For example, one gram of methamphetamine in East Kalimantan (Kalimantan Timur) yields a distinct perception of seriousness compared to a gram of the same in D.I. Yogyakarta. Besides, it matters how judges weigh variables and which variables in extralegal factors outweigh the others. The judges' ability to perceive how offenders behave during the trial, express remorse, and cooperate is very important.⁵⁸ Unfortunately, the current dataset is unable to present these judge characteristics leading to a less accurate explanation.

Nevertheless, this study interprets this finding prudently with the acknowledgment of the missing human variable, for instance, offenders' ethnicity, judges' years of service, judges' educational background, and the age of the judges. One of the possible reasons why people born in Yogyakarta and North Sulawesi receive greater leniency among the provinces could be because of the age of the defendants. In this dataset, the majority of defendants born in D.I Yogyakarta and North Sulawesi province were juveniles (100% of them were under 18 years old). The discussion regarding the age of the offenders has been previously mentioned in Lee et al. (2011) and Smith and Schriver's (2018) observations that judges tended to impose less severe punishments on

Delinquency, 48(2), 176–208; Huebner, B. M., DeJong, C., & Cobbina, J. (2010). Women coming home: Long-term patterns of recidivism. *Justice Quarterly*, 27(2), 225–254; Wickrama, K. A. S., Simons, L. G., & Baltimore, D. (2012). The Influence of Ethnicity and Adverse Life Experiences During Adolescence on Young Adult Socioeconomic Attainment: The Moderating Role of Education. *Journal of Youth and Adolescence*, 41(11), 1472–1487.

⁵⁷ Kim, B., Spohn, C., & Hedberg, E. C. (2015). Federal sentencing as a complex collaborative process: Judges, prosecutors, judge-prosecutor dyads, and disparity in sentencing. *Criminology*, 53(4), 597–623.

⁵⁸ Please see this.¹

younger offenders. Therefore, the motive behind the leniency is probably due to the age of the defendants, whereas their birthplace may have no direct effect on the judges' decision.

The results also describe that offenders born in the North Sumatera and East Kalimantan provinces receive harsher sentences compared to the other 31 provinces. Another possible explanation of this fact is by looking deeper into this dataset. There is a significant proportion of drug distributors in those two provinces. As many as 66.73% of the offenders were born in North Sumatra, and 74% of the offenders with the East Kalimantan province as their birthplace played the role of drug distributors. This interpretation also underlines the importance of legal factors in the judicial process over the possible stereotypes linked to extralegal factors. Thus, this cautious explanation presents the idea that there is no direct impact of the place of birth of the offender on the judges' sentencing.

The variation of sentencing over drug criminals in Indonesia indicate that judges collect as much legal and extra-legal information as possible from the criminals, estimate what the drawback and advantages will be of punishing them, combine the evidence to create alternatives and subsequently decide on the best alternative according to both judges and offenders' local situation. However, if recidivist information is found from all the available information, the judge agrees to give a decision to the drug recidivist with a severe sentence than the first offender.

CONCLUDING REMARKS

This study argued that judges are encouraged to consider legal factors logically, as well as estimate extralegal factors over drug offenders, to create a verdict and determine the leniency of the sentencing. The judge's sentence is expected to cost the offender a higher cost—if caught—compared to the gain to the offender for committing the crime. The increasing number of narcotics criminals

from year to year has made many researchers conduct studies to explain this phenomenon.

Thus, the study focuses on observing drug offenders in a correctional institution for several reasons. First, the share and distribution of drug offenders in the correctional institution; second, a mandate of the law to punish repeated offenders harsher; third, the possibility of drug criminals to reoffending as a result of addiction. The empirical findings in this study are not entirely surprising and suggest consistent results with previous research.⁵⁹ It revealed that recurrent offenders of drug-related crime obtain a longer period of time served in correctional institutions compared to first-time drug offenders.

In conclusion, the legal and extralegal do affect the judges' sentencing. The recidivism factor influences the judge's decision significantly by punishing the offender for a longer time living in correctional institutions, while another factor influencing the judges' sentencing varies. The current result is important to capture on how Indonesian judges behave toward recurrent drug offenders by considering legal and extra-legal factors. It is also the key to acknowledging the utilization of empirical evidence regarding the sentencing severity of penalties for repeated drug offenders in Indonesia.

As a recommendation, a policy objective could be a gradual increase in probation officers' participation in the drug courtroom. Although previously, the formation and presence of a juror team could increase the rationality and accuracy of presiding judges, probation officers' pre-sentence reports may provide more objective and rational recommendations for the judges' decisions.

Bibliography

⁵⁹ Please see this,²⁴ and this,⁴⁹ and this,²⁸; Hilinski-Rosick, C. M., Freiburger, T. L., & Verheek, A. (2014). The Effects of Legal and Extralegal Variables on the Sentences of Sex Offenders. *Victims and Offenders*, 9(3), 334–351.

Books

- Bagaric, M. (2019). Redefining the circumstances in which family hardship should mitigate sentence severity. *UNSWLJ*, 42(1), 154–187.
- Beccaria, C. M. di, & Davies, R. (1995). *On Crimes and Punishments and Others Writings*. In R. Geuss & S. Quentin (Eds.), *Beccaria: 'On Crimes and Punishments' and Other Writings* (pp. 1–86). Cambridge University Press, London. <https://doi.org/10.3138/9781442688735-005>
- Becker, G. S. (1968). Crime and punishment: An economic approach. In *The economic dimensions of crime* (pp. 13–68). Palgrave Mcmillan, London. <https://doi.org/10.1086/259394>
- Bentham, J. (1781). *An Introduction to the Principles of Morals and Legislation*. BLTC Research. <https://www.utilitarianism.com/jeremy-bentham/#one>
- Epstein, L., Landes, W. M., & Posner, R. A. (2013). *The Behavior of Federal Judges : A Theoretical & Empirical of Rational Choice*. Harvard University Press.
- Franklin, T. W. (2017). Sentencing Outcomes in U.S. District Courts: Can Offenders' Educational Attainment Guard Against Prevalent Criminal Stereotypes? *Crime and Delinquency*, 63(2), 137–165. <https://doi.org/10.1177/0011128715570627>
- Lindsey, T., & Nicholson, P. (2016). *Drugs Law and Legal Practice in Southeast Asia* (Vol. 53, Issue 9). Hart Publishing Ltd. Oregon. <https://doi.org/10.1017/CBO9781107415324.004>
- Lorkowski, J. A. (2003). *Bounded Rationality in Decision Making Under Uncertainty: Towards Optimal Granularity* (Issue Mm). Springer International Publishing. <https://doi.org/10.1007/978-3-319-62214-9>
- Mankiw, G. N. (2008). *Principle of Microeconomics* (J. E. Thomas & K. Yanos (eds.); 5e ed., Issue c). Cengage Learning. <https://doi.org/10.15713/ins.mmj.3>

- Manski, C. F. (2013). Predicting Outcomes under Policies That Mandate a Treatment. In *Public Policy in an Uncertain World* (pp. 53–58). Harvard University Press.
<https://doi.org/10.4159/harvard.9780674067547>
- Pindyck, R. S., & Rubinfeld, D. L. (2013). *Microeconomics* (D. Battista (ed.); 8th Editio, Issue c). Pearson Education Inc.
<https://doi.org/10.15713/ins.mmj.3>
- Probowati, Y. (2001). *Requisitoir Public Prosecutor and Personality of Judicial Authorities in the Criminal Process in Indonesia* [Doctoral dissertation, Universitas Gajah Mada].
http://etd.repository.ugm.ac.id/home/detail_pencarian/103
- Simon, H. A. (1972). Theories of Bounded Rationality. In C. B. McGuire & R. Radner (Eds.), *Decision and Organization* (Vol. 1, pp. 161–176). North Holland Publishing Company.
- Suryadinata, L. (2015). State and “Chinese Religions” in Indonesia: Confucianism, Tridharma and Buddhism during The Suharto Rule and After. In C. B. Tan (Ed.), *After Migration and Religious Affiliation: Religions, Chinese Identities and Transnational Networks* (pp. 19–42). World Scientific Publishing Co. Pte. Ltd.
<https://doi.org/10.1142/9789814590006>

Journal Article

- Albert, D., & Steinberg, L. (2011). Judgment and decision making in adolescence. *Journal of Research on Adolescence*, 21(1), 211–224.
<https://doi.org/10.1111/j.1532-7795.2010.00724.x>
- Bellair, P. E., & Kowalski, B. R. (2011). Low-skill employment opportunity and african American-white difference in recidivism. *Journal of Research in Crime and Delinquency*, 48(2), 176–208.
<https://doi.org/10.1177/0022427810391536>
- Blowers, A. N., & Doerner, J. K. (2015). Sentencing outcomes of the older prison population: An exploration of the age leniency argument. *Journal of Crime and Justice*, 38(1), 58–76.
<https://doi.org/10.1080/0735648X.2013.822161>

- Brown, J. M., & Sorensen, J. R. (2014). Legal and Extra-Legal Factors Related to the Imposition of Blended Sentences. *Criminal Justice Policy Review*, 25(2), 227–241. <https://doi.org/10.1177/0887403412465431>
- Cook, A., & Haynes, S. H. (2020). Imprisonment pains , reentry strains , and perceived likelihood of reoffending of reoffending. *Criminal Justice Studies*, 1–17. <https://doi.org/10.1080/1478601X.2020.1771332>
- Cullen, F. T., Jonson, C. L., & Nagin, D. S. (2011). Prisons Do Not Reduce Recidivism: The High Cost of Ignoring Science. *Prison Journal*, 91(3), 48S–65S. <https://doi.org/10.1177/0032885511415224>
- Directorate General of Correction. (2018). The Latest Data of Inmates. Sistem Database Pemasyarakatan. <http://smslap.ditjenpas.go.id/public/grl/current/monthly/year/2019/month/7>
- Doerner, J. K., & Demuth, S. (2010). The independent and joint effects of race/ethnicity, gender, and age on sentencing outcomes in U.S. federal courts. *Justice Quarterly*, 27(1), 1–27. <https://doi.org/10.1080/07418820902926197>
- Doerner, J. K., & Demuth, S. (2014). Gender and Sentencing in the Federal Courts: Are Women Treated More Leniently? *Criminal Justice Policy Review*, 25(2), 242–269. <https://doi.org/10.1177/0887403412466877>
- Drago, F., Galbiati, R., & Vertova, P. (2011). Prison Conditions and Recidivism. *American Law and Economics Review*, 13(1), 103–130. <https://doi.org/10.1093/aler/ahq024>
- Freiburger, T. L. (2009). The Effects of Gender, Family Status, and Race on Sentencing Decisions. *Behavioral Sciences & the Law*, 28(2), 378–395. <https://doi.org/10.1002/bsl.901>
- Freiburger, T. L. (2011). The Impact of Gender, Offense Type, and Familial Role on the Decision to Incarcerate. *Social Justice*

- Research, 24(2), 143–167. <https://doi.org/10.1007/s11211-011-0133-8>
- Gibbs, B. R., & Lytle, R. (2020). Drug Court Participation and Time to Failure: an Examination of Recidivism Across Program Outcome. *American Journal of Criminal Justice*, 45(2), 215–235. <https://doi.org/10.1007/s12103-019-09498-0>
- Hilinski-Rosick, C. M., Freiburger, T. L., & Verheek, A. (2014). The Effects of Legal and Extralegal Variables on the Sentences of Sex Offenders. *Victims and Offenders*, 9(3), 334–351. <https://doi.org/10.1080/15564886.2013.845637>
- Huebner, B. M., DeJong, C., & Cobbina, J. (2010). Women coming home: Long-term patterns of recidivism. *Justice Quarterly*, 27(2), 225–254. <https://doi.org/10.1080/07418820902870486>
- Iles, G., Bumphus, V. W., & Zehel, L. (2011). Assessing the relevance of legal and extralegal factors in felony drug sentencing: The case of Michigan. *Criminal Justice Studies*, 24(3), 291–306. <https://doi.org/10.1080/1478601X.2011.592730>
- Kim, B., Spohn, C., & Hedberg, E. C. (2015). Federal sentencing as a complex collaborative process: Judges, prosecutors, judge-prosecutor dyads, and disparity in sentencing. *Criminology*, 53(4), 597–623. <https://doi.org/10.1111/1745-9125.12090>
- Lai, G., Fransiska, A., & Birgin, R. (2013). Drug Policy in Indonesia. *SSRN Electronic Journal*, 1–15. <https://doi.org/10.2139/ssrn.2290259>
- Lee, M., Ulmer, J. T., & Park, M. R. (2011). Drug sentencing in South Korea: The influence of case-processing and social status factors in an ethnically homogeneous context. *Journal of Contemporary Criminal Justice*, 27(3), 378–397. <https://doi.org/10.1177/1043986211412574>
- Lim, C. S. H., Silveira, B. S., & Snyder, J. M. (2016). Do judges' characteristics matter? ethnicity, gender, and partisanship in texas state trial courts. *American Law and Economics Review*, 18(2), 302–357. <https://doi.org/10.1093/aler/ahw006>

- Logan, M. W., Morgan, M. A., Benson, M. L., & Cullen, F. T. (2019). Coping with Imprisonment: Testing the Special Sensitivity Hypothesis for White-Collar Offenders. *Justice Quarterly*, 36(2), 225–254. <https://doi.org/10.1080/07418825.2017.1396488>
- Maddan, S., Hartley, R. D., Walker, J. T., & Miller, J. M. (2012). Sympathy for the Devil: An Exploration of Federal Judicial Discretion in the Processing of White-Collar Offenders. *American Journal of Criminal Justice*, 37(1), 4–18. <https://doi.org/10.1007/s12103-010-9094-y>
- Martin, D. A. (1962). The Denomination. *The British Journal of Sociology*, 13(1), 1–14.
- Mears, D. P., Cochran, J. C., Bales, W. D., & Bhati, A. S. (1973). Recidivism and Time Served in Prison. *Journal of Criminal Law and Criminology*, 106(1 (Winter 2016)), 83–124.
- Micle, M. I., Gabriel, O., & Săucan, D. Ș. (2013). Legal and Extralegal Factors Influencing Judge’s Penal Decisions. *Procedia - Social and Behavioral Sciences*, 78, 697–701. <https://doi.org/10.1016/j.sbspro.2013.04.378>
- Miller, M. K., Maskaly, J., Green, M., & Peoples, C. D. (2011). The effects of deliberations and religious identity on mock jurors’ verdicts. *Group Processes and Intergroup Relations*, 14(4), 517–532. <https://doi.org/10.1177/1368430210377458>
- Ministry of Finance. (2018). RKAKL DIPA. Direktorat Jenderal Anggaran. <http://www.anggaran.kemenkeu.go.id/in/home>
- Ministry of Religious Affairs. (2016). Ministry of Religious Affairs in Number. Public Relation Bureau. <http://www.kemenag.go.id>
- Reitler, A. K., Sullivan, C. J., & Frank, J. (2013). The Effects of Legal and Extralegal Factors on Detention Decisions in US District Courts. *Justice Quarterly*, 30(2), 340–368. <https://doi.org/10.1080/07418825.2012.668925>
- Republic of Indonesia. (2009). Indonesia Narcotics Law. Ministry of Law and Human Rights. <https://peraturan.go.id/peraturan/index-lembaran->

- [negara.html?LembaranNegaraSearch%5Bjenis_peraturan_id%5D=11e449f35c25e4d0b18e313231373039&LembaranNegaraSearch%5Bnomor%5D=35&LembaranNegaraSearch%5Btahun%5D=2009&LembaranNegaraSearch%5Btentang%5D=](https://peraturan.go.id/peraturan/index-lembaran-negara.html?LembaranNegaraSearch%5Bjenis_peraturan_id%5D=11e449f35c25e4d0b18e313231373039&LembaranNegaraSearch%5Bnomor%5D=35&LembaranNegaraSearch%5Btahun%5D=2009&LembaranNegaraSearch%5Btentang%5D=)
- Republic of Indonesia. (2012). Juvenile Criminal Justice System. Ministry of Law and Human Rights. https://peraturan.go.id/peraturan/index-lembaran-negara.html?LembaranNegaraSearch%5Bjenis_peraturan_id%5D=11e449f35c25e4d0b18e313231373039&LembaranNegaraSearch%5Bnomor%5D=11&LembaranNegaraSearch%5Btahun%5D=2012&LembaranNegaraSearch%5Btentang%5D=
- Republic of Indonesia. (2018). Ministerial Decree on The Treatment for Elderly Prisoners. Ministry of Law and Human Rights. https://peraturan.go.id/peraturan/index-permen.html?PermenSearch%5Binstitution_id%5D=27&PermenSearch%5Btentang%5D=&PermenSearch%5Bnomor%5D=32&PermenSearch%5Btahun%5D=2018&PermenSearch%5Bnomor_bn%5D=&PermenSearch%5Btahun_bn%5D=
- Rusvalita, E., Komalasari, A., & Dewi, F. G. (2017). The Effect of the Implementation of Good Governance on Organizational Performance with the Implementation of the Whistleblowing System as a Moderating Variable at the Directorate General of Taxes. *Journal Accounting and Finance*, 22(1), 1–25.
- Ryon, S. B., Chiricos, T., Siennick, S. E., Barrick, K., & Bales, W. (2017). Sentencing in light of collateral consequences : Does age matter ? *Journal of Criminal Justice*, 53, 1–11. <https://doi.org/10.1016/j.jcrimjus.2017.07.009>
- Smith, M. S., & Schriver, J. L. (2018). Judges' sentencing decisions with older offenders. *Psychology, Crime and Law*, 24(2), 105–116. <https://doi.org/10.1080/1068316X.2017.1390117>
- Sorensen, T., Sarnikar, S., & Oaxaca, R. L. (2012). Race and gender differences under federal sentencing guidelines. *American*

- Economic Review, 102(3), 256–260.
<https://doi.org/10.1257/aer.102.3.256>
- Spalek, B. (2011). *Islam , Crime and Criminal Justice* (B. Spalek (ed.); 5th ed.). Routledge.
- Starr, S. B. (2015). Estimating gender disparities in federal criminal cases. *American Law and Economics Review*, 17(1), 127–159.
<https://doi.org/10.1093/aler/ahu010>
- Steffensmeier, D., Kramer, J., & Ulmer, J. (1995). Age differences in sentencing. *Justice Quarterly*, 12(3), 583–602.
<https://doi.org/10.1080/07418829500096151>
- Sutton, J. R. (2013). Symbol and substance: Effects of California’s three strikes Law on Felony sentencing. *Law and Society Review*, 47(1), 37–72. <https://doi.org/10.1111/lasr.12001>
- Ulen, T. S. (2013). Rational choice theory in law and economics. In *Encyclopedia of law and economics* (Vol. 27, Issue 1, pp. 790–818).
<https://doi.org/10.1146/annurev.soc.29.010202.100213>
- Van Slyke, S., & Bales, W. D. (2012). A contemporary study of the decision to incarcerate white-collar and street property offenders. *Punishment and Society*, 14(2), 217–246.
<https://doi.org/10.1177/1462474511434437>
- Van Slyke, S., & Bales, W. D. (2013). Gender dynamics in the sentencing of white-collar offenders. *Criminal Justice Studies*, 26(2), 168–196.
<https://doi.org/10.1080/1478601X.2012.729707>
- van Wingerden, S., van Wilsem, J., & Johnson, B. D. (2016). Offender’s Personal Circumstances and Punishment: Toward a More Refined Model for the Explanation of Sentencing Disparities. *Justice Quarterly*, 33(1), 100–133.
<https://doi.org/10.1080/07418825.2014.902091>
- Vigorita, M. S. (2002). What you don’t know can hurt you: First-time offenders and sentence severity. *The Justice Professional*, 15(2), 75–86. <https://doi.org/10.1080/08884310214023>
- Ward, J. T., Hartley, R. D., & Tillyer, R. (2016). Unpacking gender and racial/ethnic biases in the federal sentencing of drug offenders: A

- causal mediation approach. *Journal of Criminal Justice*, 46, 196–206. <https://doi.org/10.1016/j.jcrimjus.2016.05.008>
- Weissman, S. H., Busch, K. G., & Schouten, R. (2010). The Evolution of Terrorism from 1914 to 2014. *Behavioral Sciences & the Law*, 28(2), 211–223. <https://doi.org/10.1002/bsl>
- Wickrama, K. A. S., Simons, L. G., & Baltimore, D. (2012). The Influence of Ethnicity and Adverse Life Experiences During Adolescence on Young Adult Socioeconomic Attainment: The Moderating Role of Education. *Journal of Youth and Adolescence*, 41(11), 1472–1487. <https://doi.org/10.1007/s10964-012-9764-9>
- Wistrich, A. J., Rachlinski, J. J., & Guthrie, C. (2015). Heart versus head: Do judges follow the law or follow their feelings? *Texas Law Review*, 93(4), 855–923.
- Wooldridge, J. M. (2013). *Introductory Econometrics: A Modern Approach*. In *Introductory Econometrics: A Modern Approach* (Fifth). South-Western, Cengage Learning. <https://doi.org/10.4324/9781351140768-8>