Does poverty affect divorce rates

By Khairul Amri

Does poverty affect divorce rates? The role of women’s income as moderating variable

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Abstract:

This study intends to investigate the effect of poverty on divorce rates and analyzes the moderating role of women's income between the two variables. In addition, this study also explores the causality relationship among the three variables. Using panel data set of 32 provinces in Indonesia during the period 2010-2018, the fixed-effect approach of panel regression, moderated regression analysis (MRA), and the Granger test was applied as a means of data analysis. This study discovered that poverty does not have, but women’s income has a positive and significant effect on divorce rates. However, the women's income has negative moderating effects on the poverty-to-divorce rate effects. The women’s independence among the poor potentially drives the divorce rate. The poverty rate has bidirectional causality with women's income and divorce rates. In addition, unidirectional causality exists from divorce rates to women's income.

Keywords**:** Divorce rates, poverty rate, women’s income, moderating regression analysis

1. Introduction

The study on the relationship between poverty and marital stability has become a widespread concern among social science researchers (Aytac, 1985; Mocan, 1991). However, their findings still have been showing paradoxical results. The divorce intention often puts economic factors as the main reason (Raz-Yurovich, 2012). The lack of a Husband's ability to sufficient the material need encourages the wife's desire to divorce (González-Val & Marcén, 2016). In contrast to the two researchers, the results of Jan & Hyder's (2018) study found that divorce cases are not related to the economic factors of the household. But, the marital dissolution happened due to a lack of commitment and equality among couples. An empirical study conducted by MacDonald & Dildar (2018) also found that economic factors do not cause divorce.

Some researchers have linked divorce to women's economic independence. But, their research findings on the relationship between the two variables are still controversial and have not given a fixed conclusion. Women's autonomy in economics significantly increases the likelihood of divorce (Dechter, 1992; Fokkema & Liefbroer, 2004). Women's income positively impacts family welfare, but it negatively impacts marital stability and is one of the factors causing divorce (Kutlar et al., 2018). The results of Kaplan & Herbst's (2015) study for the case of Israel revealed that the odds of divorce increase when the wife's work participation is better than the husband's. Previously, the research findings of Sayer & Bianchi (2000) also found that there is a positive association between a wife's contribution to household income and divorce. In contrast with the findings of these researchers, the results of the study of Kalmijn et al. (2004) found that there was no significant relationship between women's economic independence with divorce and the validity of economic factors as the cause of divorce is conditional on cultural values. A paradoxical relationship between the two variables was also referred to by Vignoli et al. (2018) in their research findings for European countries that discovers that women's income affects marital disruption in Italy and Poland, but not in Germany and Hungary.

Like commonly of the world community, divorce has been an integral part of the social phenomena of society in Indonesia. It's just that the intensity of that is relatively different from one region to another. Until 2018, the highest-divorced rate province is Nusa Tenggara Barat (3.37%), then following Kalimantan Barat (2.74%), Sulawesi Selatan (2.34%), and Sumatera Barat (2.23%). On the contrary, at the same time, the lowest-divorced rates province is Papua (1.13%), Bali (1.34%), and Sulawesi Utara (1.53%). The differences in the divorce rate logically indicate the existence of the marital and social dilemma faced by a small group of communities of the respective provinces.

The poverty rate of each province in Indonesia is relatively different from one another. Documentation of Indonesia's poverty data shows that during the 2018 period, the highest poverty rate province was Papua (27.43%), followed by Papua Barat (22.66%) in the second, and then Nusa Tenggara Timur (21.03%) and Maluku (17, 85%) positioned in the third and fourth, respectively. In contrast, the lowest poverty rate province is Bali (3.91%), followed by Kalimantan Selatan (4.65%), Bangka Belitung (4.77%), and Kalimantan Tengah (5.10%). The differences in the poverty rate indicate that the community's welfare of the respective province in Indonesia is also different from one another (Adnan & Amri, 2021).

The results of preliminary studies on related data indicate that the contribution of women's income to household income in Indonesia is relatively different from one region to another. Even these differences also occur in the same province for disparate periods. Using time-series data from 2010 to 2018, the region with the highest contribution of women's income was Nusa Tenggara Timur (41.56%), followed by Yogyakarta by 39.95%, and Maluku by 36.32%. On the contrary, the regions with the lowest contribution of women's income are Kalimantan Timur (22.04%), then followed by Bangka Belitung (24.75%) and Gorontalo (24.93%). These parameters of descriptive statistics, aside from explaining the differences in the intensity of women's involvement in productive economic activities, also indicate that women's contribution to their family welfare in each region is different.

As explained earlier, the divorce rate in Indonesia is relatively different by province. Similar to both the poverty rate and women's contribution to the household's income. Therefore, the study of the interrelationship between these variables is interesting for further investigation. Moreover, previous research findings have not provided the same conclusions regarding the direction of the relationship between the three variables. The research conducted by these researchers only analyzes the relationship between divorce and poverty and women's incomes partially and is one-way. Even though divorce also harms aspects of post-divorce family life. Such as Cavapozzi et al. (2019) that the deteriorating economic condition of the family is one of the negative impacts of divorce. Previously, Duke-Natrebo's (2014) research also proved that divorce impacts the wellbeing after divorce. Divorced women strive to meet their daily needs through active participation in the work field, so divorce also affects women's economic independence (Andre et al., 2018) and eventually social stability in society (Clark & Brauner-Otto, 2015).

Unlike previous researchers, our study puts women’s income as a moderating variable between poverty and divorce. This respective is because of the significance level of the relationship between poverty and women’s economic independence, which is still an open question. Therefore, to sharpen the analysis requires an effort to test the interaction between the two variables in explaining the divorce rate. When previous researchers only analyzed the one-way effects of poverty and women’s income on divorce, the current research study investigates the direction of causality between the three variables using the Granger causality test panel. So, our findings can reveal the significance of a variable in explaining changes in other variables. Therefore, this study also provides empirical evidence on whether the changes in the poverty rate lead to changes in divorce rate and women’s income or the opposite, the divorce rate affects the two variables. The findings of this study have contributed gratefully to the development of literature related to the existence and economic independence of women and their relationship to poverty and marital stability. Finally, our study has theoretical implications for subsequent research practical implications for related policymakers to improve marital stability in Indonesia.

2. Literature review.

2.1 The link between poverty and divorce

The study on the factors causing divorce among spouses has become the focus of researchers (Becker et al., 1977; Amsden, 1980). The educational factors of couples (Mahmood et al., 2016), age at marriage, family intervention, sexual satisfaction, lack of communication, and not having children (Mostafaei, 2016) can affect marital dissolution. A research study conducted by Scot et al. (2013) found that the main contributing factor to divorce is the lack of commitment between the two parties (wife and husband), infidelity, and conflict in the household. Other empirical studies on the causes of divorce put socioeconomic variables as a predictor variable. Socioeconomic factors have become the primary cause of divorce intentions among certain community groups (Lee & Bumpass, 2006). The incapacity of a household head in satisfying material and psychological needs has become one cause of marital disability (González-Val & Marcen, 2017). There is a strong relationship between household economic instability and divorce. Financial hardship has become a meaningful predictor of divorce (Andersen, 2005; Sadeghi & Agadjanian, 2019). The financial hardship is usually related to the employment status of the husband. When the husband is unemployed and unable to meet the family's needs, this affects the stability of the marriage. Joblessness status of spouses harms marital stability and significantly increases the risk of divorce (Maslauskaite et al., 2015). The existence of a link between financial problems and the tendency to divorce is strengthened by the results of research by Mohlatlole et al. (2018) for the case of Lebowakgomo, South Africa, which has revealed that financial problems caused divorce among young couples. Even other studies such as the findings of Dagnew et al. (2020) in Ethiopia pointed out that a wife with no-house ownership has higher odds of divorce. In contrast, family economic stability can reduce the risk of divorce. The raising husband's income and household financial convenience are negatively related to the odds of divorce (Raz-Yurovich, 2012).

The causal relationship of poverty and divorce allows being a reciprocal relationship. Poverty causes divorce, and vice versa the divorce also raises the odds of poor economics among divorced spouses. The negative impact of divorce on economic stability has been evident by previous researchers. Like the results of the study by Heimdal & Houseknecht (2003) for the case of Sweden and the United States, suggested that divorce has a significant impact on the economic dimension. The biggest change regards to loss of income. Divorced women are more economically vulnerable, especially when they are uneducated (Hogendoorn, 2019).

Previously, the empirical findings of Austin & Azih (2018) for the case of US communities also pointed out that divorce is close to poverty and caused women to be single parents and heads of the household as well. Most divorced women have low incomes during the early divorce and have a higher risk of persistent poverty (Gadalla, 2008). In similar, divorced men also economically experience the negative impact of divorce. Post-divorce, the prosperity of divorced men decreased moderately, and women's welfare declined much faster. As a result, most of them are in poverty (Avellar & Smock, 2005).

2.2 The link between poverty and women's income

Meeting primary needs is crucial for any household. The unmet needs do not only affect marital stability. But also affect the health and education of children. In the Indonesian context, a husband has full responsibility for the meets of household needs (Riany & Morawska, 2021). However, a wife has the odds of helping the husband in alleviating the household's burden. The odds enable them to be involved in productive economic activities to generate additional income for families (Cameron et al., 2018). A research study conducted by Patimo et al. (2015), for the case of

European economies, shows that when families suffer from financial hardship because lost-job husbands encourage wives to take part in productive economic activity.

Several studies conducted by previous researchers prove that poverty encourages women to be actively involved in productive activity. Decreased husband's income so that he cannot meet family needs is one of the main determinants of women's work participation, especially wives (Awumbilla, 2006; Brady, 2006). Poor-families women have better job participation than those living in non-poor families (Hilal, 2012; Meinzen-Dick et al., 2017). Even in conditions of poverty, besides actively taking part in economic activities to generate income, other efforts undertaken by women are diversifying businesses, seeking a way to meet food needs spendings, clothing, and social interest spending.

Other empirical research on the relationship between poverty and women's income shows a causal relationship between the two variables. Like, the study of Owusu et al. (2013) in Ghana concluded that women's participation in productive economic activities enables them to increase the welfare of their families and aggregately reduce the poverty rate in the community. Poverty also causes an increase in women's work participation so that their contribution to household income increases. Similarly, the finding of Awan & Sadia (2018) also points out a bidirectional causality relationship between poverty and women's income. Poverty encourages women to be actively involved in economic activities. The involvement will come on their income, and subsequently, an increase in women's income significantly reduces the poverty rate.

2.3 The link between women's income and divorce

Research studies on the relationship between women and divorce have long been a concern of social researchers. There is an empirical argument underlying that the two variables are related to one each other. Women have an important role in the household's survival. The study conducted by Moore & Sawhill (1978) discover that greater income-married women have higher odds of divorce compared to lower income-married women. Divorce rates are 4 percent higher among families with working women compared to families of unemployed women (Amsden, 1980). Divorce decreases when birth increases, and vice versa, divorce increases when labor participation increases (Mocan, 1991). In line with these researchers' findings, the results of a study by Fokkema & Liefbroer (2004) conducted on women in the Netherlands found that a wife's participation in the work field significantly increased the odds of divorce. An empirical study conducted by Sadeghi & Agadjanian (2019) used primary data in Iran, and a research study conducted by Dagnew et al. (2020) for the case of Ethiopian women also revealed that the wife's work participation and their economic independence led to a higher probability of divorce. Previously, Mo's (2016) research study also stated that several general socioeconomic factors, including improvement in women's social status, had a significant impact on divorce patterns.

The finding of researchers, as explained above, empirically explain that women's economic independence has caused divorce. Other researchers have also found a similar result. For instance, research conducted by Kaplan & Herbst (2015) in Israel found that a wife's income has a different effect on the likelihood of divorce, depending on family income. The odds of divorce increase when the wife has income exceeding the husband's income. The existence of the relationship between two variables is also in line with the findings of Jiménez-Rubio et al.'s (2016) study on the determinant of divorce in Spain, which has concluded that women's economic independence is the factor encouraging wives to file for divorce claims.

The relationship between women's income and divorce can occur in a two-way relation. The relationship between the two variables is reciprocal. Divorce also affects the work participation of women. Divorced women have higher work participation compared to married women. That is because the economic pressure faced by women with widowed status after divorce is greater than married women (Lee & Bumpass, 2006). Therefore, they attempt to take part in the work field to meet their daily needs. It is as revealed in the result of the empirical research conducted by Kutlar et al. (2018) for the case of Turkey discovering the positive and significant effect of divorce on the productive economic activity of women.

3. Methodology approach

Our study uses secondary data sourced from the Indonesian Central Bureau of Statistics. The data is in panel data form, is a combination of time series over the period 2010-2018 (n = 9) and cross-section data of 32 provinces. Variables operationalized in this study comprise poverty rates, women's income, and divorce rates. The poverty rate is the poor to total population ratio measured by percent. Women's incomes are proxies from the contribution of women's income to household income that is statistically measured by a percent. The divorce rate is the percentage of divorce rate, which is the ratio of divorced spouses to the total household.

Considering the research study operationalized a panel dataset, the analysis model used to analyze the functional relationship between variables is panel regression. For the estimated coefficient of the poverty rate and women's income toward divorce rates to be interpreted as the elasticity of the two independent variables, it is necessary to transform the data of the three variables into logarithmic forms. The transformation process intends to the estimated coefficient of both poverty rate and women's income to reflect the elasticity of the two independent variables (Chen et al., 2019). In econometrics, the panel regression model is applied to investigate the effect of the poverty rate and women's income on the divorce rate written as in equation 1.

$$\log DR_{it} = \beta_0 + \beta_1 \log PR_{it} + \beta_2 \log WI_{it} + e_{it} \quad (1)$$

where $\log DR_{it}$ is the logarithmic value of the divorce rate for the province of i at the period of t; $\log PR_{it}$ is the logarithmic value of the poverty rate for the province of i at the period of t, and $\log WI_{it}$ is the logarithmic value of the women's income for the province of i at the period of t. β_0 denote for constant, and β_1, β_2 are the estimated coefficient of PR_{it} and WI_{it}, respectively. Lastly, e_{it} is an error term.

As explained earlier, this study also put women's income as a moderating variable between poverty rates and divorce rates. The existence of moderating variables in a causal relationship between the two variables implies that the analysis model used for this study is moderated regression analysis (MRA) (Momen et al., 2019). The MRA allows us to analyze the moderating effect of women's income on the causal relationship between poverty and divorce rate in a regression model. Referring to Giesselmann & Schmidt-Catran (2020), the application of MRA for this study is seen in equation 2.

$$\log DR_{it} = \beta_0 + \beta_1 \log PR_{it} + \beta_2 \log WI_{it} + \beta_3 \log PR_{it} * \log WI_{it} + e_{it} \quad (2)$$

The "logPRit * logWIit" is a symbol of moderating variables. This is an interaction between women's income and poverty rates. β_3 represents the estimated coefficient of the interaction variables. The moderating effect can be detected from the estimated coefficient of interaction variables (Islam et al., 2020). If the coefficient is statistically significant, it informs that the moderating role exists (Kalmaz & Giritli, 2020). This means that if $\beta_3 \neq 0$ (p-value < 0.05), interpreted that the women's income moderates the effect of poverty on the divorce rate. The opposite interpretation applies if $\beta_3 = 0$ (p-value > 0.05). The interaction effect produced by the moderator variable comprises three probabilities, namely strengthening, weakening, or changing the direction of the relationship between variables (Gardner et al., 2017).

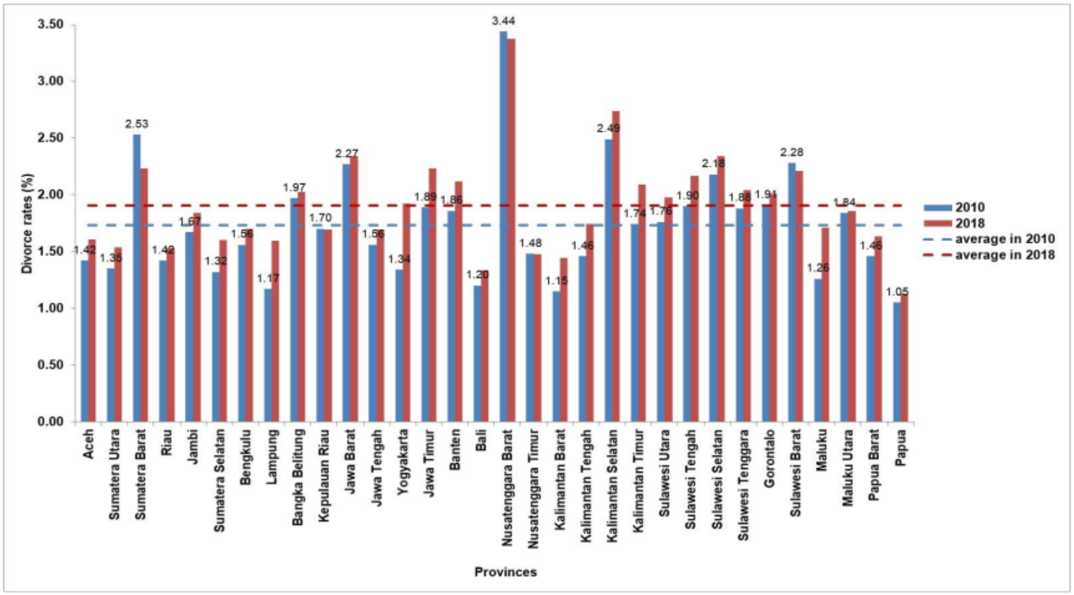
The regression panel has three approaches, consisting of the common-effect approach, the fixed-effect, and the random-effect approach. The selection process is one of the three approaches statistically able to provide the best estimation utilizing the Chow test and Hausman test. Chow tests determine the choice of the best model between either the common effect or fixed-effect. Then, the Hausman test determines the best choice between either a fixed-effect or random-effect approach (Muliadi & Amri, 2019).

Determination of the effect significance of the poverty rate and women's income partially on the divorce rate refers to the p-value generated by the statistics calculation of using E-Views software. When the p-value of a certain variable, it means that the estimated coefficient of the variable is significant. if it has a p-value means that it. Furthermore, testing the effect of women's income moderation in the functional relationship between the two variables is based on the significance of the estimated coefficient of $LogWI_{it}$ (β_2) and moderating variables ($LogPR_{it}*LogWI_{it}$) (β_3). When β_2 is not significant (p-value> 0.05) and β_3 is significant (p-value <0.05), the moderating role of the women's income is that a pure moderation effect. For another statistical result, if β_2 is significant (p-value <0.05), and β_3 is not significant (p-value> 0.05), this means that the women's income is only considered as an independent variable but does not act as a moderating variable. Finally, we also analyze the direction of causality between divorce rates, poverty rates, and women's income. In this respect, the econometric model used is the Granger causality test. The use of this model allows us to investigate whether the causal relationship of certain variables to other variables is one-way causality, two-way causality, or the variables are independent of one another (Amri et al., 2019).

4. Result and discussion

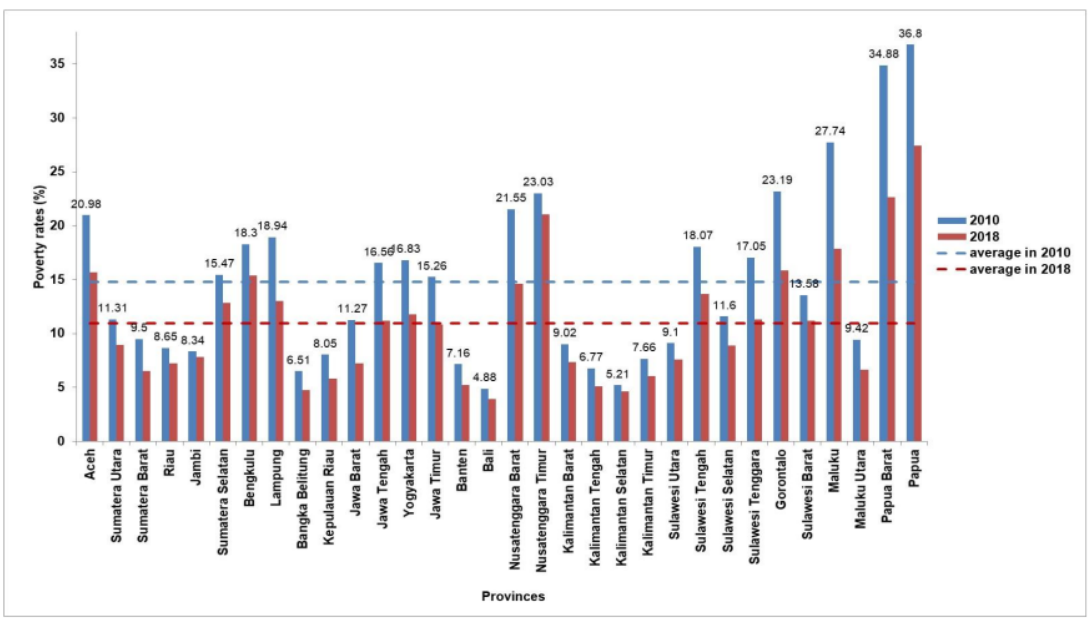
4.1 Trend in divorce rate and the poverty rate

Over the past few years, Indonesia's economic growth has continued to increase (Amri et al., 2018; Hasyim et al., 2019). But most regions still suffer from a high poverty rate. At the same time, the divorce rates and women's incomes in the respective area are also different from one another. Regarding divorce, the Indonesian Central Bureau of Statistics documents that the divorce rate in Indonesia differs by province. In 2010, the highest divorce rate province was Nusa Tenggara Barat (3.44%), followed by Sumatra Barat (2.53%) in the second. The area with the lowest divorce rate, and vice versa, is Papua (1.05%). On average (across provinces), the divorce rate in 2010 was 1.74%. In the following period, the divorce rate in the respective area in Indonesia increases. Although some areas experienced a decline in the divorce rate, on average, the divorce rate increased to 1.91% in 2018. For more details on the dynamics of the divorce rates by the province from 2010 to 2018, as seen in Graph 1.



Graph 1. The dynamic of divorce rate by provinces in Indonesia from 2010 to 2018

Further, in terms of the poverty rate, in 2010, the area with the highest poverty in Indonesia was Papua (36.8%), followed by Papua Barat (34.8%) in the second. In the same year, on the contrary, the lowest poverty rate province is Bali (4.88%). On average, the poverty rate in 2010 was 14.77%. To improve the people's welfare, the central and regional governments in Indonesia carry out various development programs to reduce the poverty rate. As a result, since 2011, the poverty rate of each region has decreased. However, the decline differs by province. Until 2018, the average poverty rate was 10.95%. The trends of poverty rate by the province from 2010 to 2018, as seen in Graph 2.



Graph 2. The dynamic of the poverty rate across provinces in Indonesia from 2010 to 2018

4.2 The result of descriptive statistics and correlation matrix

Descriptive statistics are useful for describing the variables studied using statistical parameters, such as the average, maximum value, minimum value, and other descriptive statistical measures. While the correlation matrix can inform the strength of the relationship between variables. In detail, the result of descriptive statistics and correlation matrix, as seen in table 1.

Table 1. The descriptive statistics and correlation matrix

	Divorced rate (%)	Poverty rate (%)	Women's income (%)
Descriptive statistics			
Mean	1.749	12.369	32.097
Median	1.670	11.195	33.005
Maximum	3.440	36.800	43.260
Minimum	0.980	3.910	20.580
Std. Dev.	0.478	6.456	4.633
Observations	288	288	288
Correlation matrix			
Divorced rate	1.000		
Poverty rate	-0.192	1.000	
Women's income	-0.070	0.143	1.000

Source: Author's computation, 2021.

Table 1 above shows the statistical parameters of the three variables. The mean divorce rate of the panel data set of 32 provinces in Indonesia is 1.75%. The same statistical parameters for the poverty rate and women's incomes were 12.37% and 32.09%, respectively. The next parameter is the maximum value, is that respectively, the divorce rate of 3.44%, the poverty rate of 36.80%, and the women's income of 43.26%.

The correlation matrix shows the correlation coefficient between the divorce rate and the poverty rate of -0.192. Statistically, this figure indicates that the relationship between the two variables is relatively weak. The relationship between the divorce rate and women's income, and between women's income and the poverty rate show the correlation coefficient of -0.070 and 0.143, respectively. The statistical figures also inform that the relationship between the variables is also very weak.

As explained above, the relationship between women's income and poverty is shown by a correlation coefficient (r) of 0.145. This number is smaller than the value of the simultaneous correlation coefficient, as shown in the panel regression results of 0.873 (model 1) and 0.874 (model 2) (See table 2). Thus, it can be interpreted that the estimation of the effect of women's income and poverty on the divorce rate is free from multicollinearity symptoms.

4.3 Result of panel estimation

As explained in the research methods section, testing the effect of poverty and women's income on divorce rate using the panel regression model, and moderated regression analysis (MRA). Using two econometric models has three choices of approaches comprise common effect, fixed effect, and random effect. To determine which one of the best approaches of the three, the statistical tests applied to comprise the Chow test and the Hausman test. Chow tests are used to determine the best choice between the common-effect or fixed-effects approach. The decision of the test statistically based on comparing the p-value for the cross-section F with the provision is that if the p-value > 0.05, this means the best model is a common effect. Conversely, the opposite result statistically shows that the best model is a fixed effect. In summarizes, the result of the Chow test and Hausman test, as shown in Table 2.

Table 2. The result of Chow Test and Hausman test

	Chow Test				Hausman test		
	Effect specification		Stat	*p-value*	Effect specification	X^2-Stat	*p-value*
Panel regression	Cross-Section Fixed Effects	Cross-section F Cross-section X^2	61.704 617.379	0.000 0.000	Cross-Section Random Effects	20.901	0.000
	Effect specification		Stat	*p-value*	Effect specification	X^2-Stat	*p-value*
Panel moderated regression	Cross-Section Fixed Effects	Cross-section F Cross-section X^2	61.704 618.709	0.000 0.000	Cross-Section Random Effects	22.084	0.000

Source: Author's computation, 2021.

Table 2 above shows the p-value for the cross-section F of 0.000 (<0.05) both for panel regression and MRA. Thus, this thing concluded that the best approach is the fixed-effect approach. In addition, the p-value for the cross-section random effects is 0,000 (<0.05), both for panel regression and MRA. The statistical result also informs that the fixed-effect approach is better compared to the random-effects.

As explained earlier, our study operationalizes two econometric models. The first model is a fixed-effect approach of the panel regression method that estimates the effect of poverty and women's income on divorce. In the second model, we employ a panel of moderated regression analysis, which puts women's income as a moderating variable for the causal relationship between poverty and divorce. The summary of the estimated results of the two models are shown in Table 3.

Table 3. The result of the fixed-effect approach of panel linear regression and MRA

	Model 1			Model 2		
	Estimate coefficient	t-statistic	p-value	Estimate coefficient	t-statistic	p-value
Constant	-5.299	-5.178	0.000	-9.466	-3.968	0.000
Logpov	0.041	0.486	0.627	1.689**	1.970	0.049
logWI	1.656***	6.604	0.000	2.861***	4.257	0.000
logPov*logWI				-0.476*	-1.931	0.055
Effects Specification: Cross-section fixed						
R^2	: 0.887			: 0.889		
Adjusted-R^2	: 0.873			: 0.874		
F-stat	: 60.619			: 59.578		
Prob(F-stat)	: 0.000			: 0.000		
DW-stat	: 1.606			: 1.623		
Residual normality						
Jarque-Bera	0.359 (0.836)			0.025 (0.987)		

Source: Author's computation, 2021.

Note: Numbers in parenthesis are p-value, * is significant at 90% level; ** significant at 95% level; and *** significant at 99% level.

Model 1 represents the functional relationship between the divorce rate on one side, and the poverty rate and women's income on another side. The poverty rate has a non-significant and positive effect on divorce rates, with an estimated coefficient of 0.041 (p-value = 0.627> 0.05). This means that poverty experienced by households does not affect the intention of divorce among couples. This empirical evidence supports the findings of Killewald (2016) pointing out that the poverty rate did not significantly impact divorce. However, this finding contradicts the result of Miladinov's (2015) study, which found that family financial stability is related to divorce rates significantly. Previously, Lee & Bumpass (2006) also provides that there is a close relationship between the high divorce rate and the socio-economic factors. The household's economic stability has been one of an antecedent of divorce. The lack of a husband's abilities to sufficient the material need of his family has caused the emergence of divorce.

Unlike the poverty rates, women's income positively and significantly affects divorce rates, shown by an estimated coefficient of 1.656 (p-value = 0.001 <0.05). The greater the women's income, the higher the divorce rate. Women's income reflects their participation in economic activities. Higher-income women have better economic independence compared to lower-income women. This finding supports the results of research conducted by Bremmer & Kesselring (2004) in the United States who found that divorce rates increased when women's incomes increased. Previously, Montalto (1994) also discovered that the odds of divorce increased among working women. In contrast, this finding is not in line with the results of Dong's (2018) research study, concluding that there is no powerful evidence that women's work participation and income affected divorce rates. Previously, the research findings of Killewald (2016) also found that the wife's economic independence did not directly affect divorce.

Model 2 represents the results from moderated regression analysis, putting women's income as a moderating variable between the poverty rate and divorce rates. The women's income moderates the causal relationship between the two variables, and impact the effect significance of the poverty rate on the divorce rate. In contrast to model 1 earlier, model 2 shows an estimated coefficient of poverty rate of 1,689 (p-value = 0.049 < 0.05), which shows that poverty positively and significantly affects the divorce rate.

The interaction between the two predictor variables also affects the relationship between poverty and divorce rates. It showed by the estimated coefficient of the moderating variable of -0.476 (p-value = 0.055), significant at 90% confidence levels. This respect means that aside from as the predictor variable for divorce rate, the women's income also moderates the effect of poverty on divorce. The moderating role of women's income on the causal relationship between the two variables is pure moderation. This moderating effect is negative and significant. An increase in women's income reduces the positive impact of poverty on divorce. This shows that although their income is positively related to divorce, it reduces the positive effect of poverty on divorce. In poor families, when the wife's income increases through their participation in productive economic activities, they try to maintain the integrity of their family.

4.3 Result of Granger causality test

The Granger causality test is useful for detecting the direction of influence between variables. The use of this econometric model can provide information on which one of two variables causes changes in other variables first (Amri et al., 2019). In summary, the result of the test as in Table 4.

Table 4. The result of panel Granger causality test

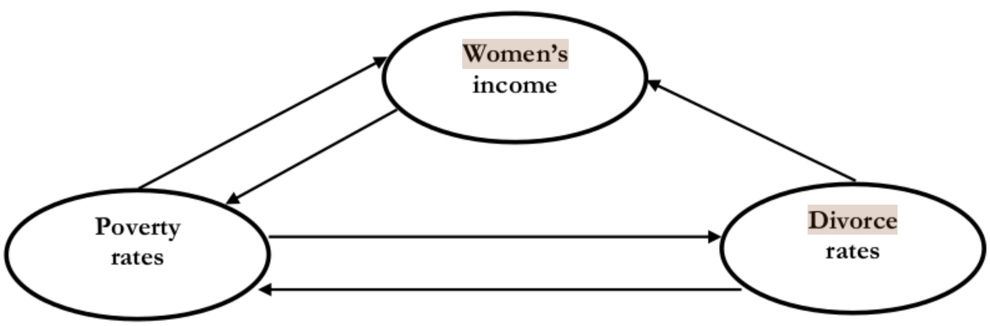
Endogenous variables	Exogenous variables					
	Lag length of 1			Lag length of 2		
	logPR	logDR	logWI	logPR	logDR	logWI
logPR	-	[2,606] (0,108)	[3,092] (0,079)*	-	[2,229] (0,110)	[1,598] (0,205)
logDR	[1,241] (0,266)	-	[0,269] (0,605)	[4,306] (0,015)**	-	[0,049] (0,953)
logWI	[2,972] (0,086)*	[0,506] (0,478)	-	[1,129] (0,325)	[0,409] (0,664)	-
	Lag length of 3			Lag length of 4		
	logPR	logDR	logWI	logPR	logDR	logWI
logPR	-	[2,351] (0,074)*	[1,551] (0,203)	-	[0,685] (0,603)	[1,288] (0,277)
logDR	[1,412] (0,241)	-	[0,252] (0,860)	[0,616] (0,652)	-	[1,437] (0,224)
logWI	[1,272] (0,286)	[0,309] (0,818)	-	[2,961] (0,022)**	[2,177] (0,074)*	-

Source: Author's computation, 2021.

Note: the values in parentheses ( ) are chi-square, the values in bracket [ ] are p-values. * and ** indicate the significant at 90% and 95% level, respectively.

Based on Table 4 above, the direction of causality between poverty, women's income, and the divorce rate in Indonesia, as shown in Figure 1.

Figure 1. The direction of causality relationship between variables



Bidirectional causality exists between divorce and the poverty rate. That points out that the divorce rate causes poverty rate, and vice versa, poverty also causes divorce rates. This finding supports the results of previous research conducted by Austin & Azih (2018), discovering that divorce drives a person to live in poverty. In post-divorce, the economic welfare of divorced men decreases moderately, while for women declines more rapidly, and some of them are at risk of living in poverty continuously (Avellar & Smock, 2005). The existence of a causality relationship between poverty toward divorce rates confirms the research findings of Mohlatlole et al. (2018) which proves that the household's economic condition is a factor causing divorce.

Further, bidirectional causality also exists between women's income and the poverty rate. This statistical evidence shows that poverty encourages women to take an active role in productive economic activity. As a result, they can also contribute to the increase in household income. An increase in women's income impacts poverty reduction. This finding is consistent with the results of the study by Owusu et al. (2013) in Ghana, which revealed that women's income could not only improve the welfare of their families but also reduce the poverty rate in the aggregate. This finding also supports the empirical research of Hilal (2012) and Meinzen-Dick et al. (2017), pointing out that women's involvement in productive economic activities improves the quality of life of their families, and negatively affects the poverty rate.

As shown in figure 1 above, one-way causality runs from the divorce rate to women's income. From the Indonesian perspective, we explicitly assumed divorce as the end of the husband's economic responsibility towards his wife, and this condition encourages divorced women to meet their own needs. They will try to enter the work field to generate income to sufficient their daily needs. Thus, changes in women's income as a logical implication of divorce occur through women's involvement in productive economic activities. These findings confirm the results of Karaalp-Orhan's (2017) study, which concluded that the economic hardship experienced by post-divorce women leads them to take part in income-generating activities. In the end, this condition affected improving women's independence economically. However, improvements in women's incomes do not directly impact divorce. Women's income is not a factor of divorce. As shown by the econometrics result of the Granger causality test depict that there is no causality of women's income to divorce. Our finding is not in line with the results of the study of Kutlar et al. (2018), in Turkey pointing out that the causal relationship between the two variables is reciprocal, where divorce causes women's income, and vice versa, women's income also affects divorce.

5. Conclusion and recommendation

Our study aims to analyze the effect of poverty on divorce rates, as well as the role of moderation of women's income on the functional relationship between the two variables. Using panel data on 32 provinces in Indonesia during the period 2010-2018, the analysis model used was the fixed-effect model panel regression, Moderated regression analysis, and the Granger causality test. The study found that partially women's income had a positive and significant effect on divorce rates. Conversely, poverty did not affect the divorce. However, the significant effect of poverty on divorce occurs because of women's income as a moderating variable. The effect of women's income moderation on the relationship between the two variables is pure moderation. Thus, our study concluded that the negative impact of poverty on divorce only occurs when women's independence economically increased.

The results of the Granger causality test point out that a two-way causality relationship exists between the poverty rate and women's incomes, and between divorce rates and poverty rates. Divorce causes poverty, and vice versa, poverty also affects divorce. Women's income affects the poverty rate, and further poverty rate also causes increased women's income. A one-way causality relationship runs from divorce to women's incomes. Divorce encourages women to take part proactively in the work field to improve their prosperity of life.

Referring to the conclusions above, the government must realize that the economic empowerment of poor groups through women's economic activities, aside from increasing their income, also harms marital stability. Deteriorating family financial conditions, on the one side, and increasing the economic independence of the wife, on the other side, encourages the wife's desire to propose a divorce claim. In the future, the economic empowerment program applied to improve the poor-group economy must be equal for a couple (wife and husband). So that the improvement of a wife's income along with the improvement of a husband's income.

References

Adnan, G., & Amri, K. (2021). Do gender empowerment and democracy reduce poverty rate? A cross-provinces evidence from western Indonesia. *Economics and Sociology*, 14(3), 54-71. doi:10.14254/2071-789X.2020/14-3/3.

Amri, K. (2018). The macroeconomic impact of regional minimum wages: A cross-province data evidence from Indonesia. *Regional Science Inquiry*. 10(3), 163-176.

Amri, K., & Adi, A. R. (2021). Apakah religiusitas keIslaman mempengaruhi ketimpangan pendapatan? Bukti data panel dari provinsi Aceh. *Jurnal Ekonomi dan Pembangunan*, *29*(2). Retrieved from https://jurnalekonomi.lipi.go.id/JEP/article/view/704

Amri, K., Nazamuddin., Masbar, R., &Aimon, H. (2019). Is there a causality relationship between local tax revenue and regional economic growth? A panel data evidence from Indonesia, *Regional Science Inquiry,* 11 (1),73-84.

Amsden, A. H. (1980). The economics of women and work. New York: St. Martin's Press.

Andersen, J. D. (2005). Financial Problems and Divorce. *Journal of Divorce & Remarriage, 43(1-2), 149–161*. doi:10.1300/j087v43n01_08

Andre, S., Dewilde, C., & Muffels, R. (2018). What do housing wealth and tenure have to do with it? Changes in wellbeing of men and women after divorce using Australian panel data. *Social Science Research*. doi:10.1016/j.ssresearch.2018.12.017.

Austin, C., & Azih, M. (2018). Analysis of factors contributing to poverty in the United States: An Empirical Study,

Avellar, S., & Smock, P. J. (2005). The economic consequences of the dissolution of cohabiting unions. *Journal of Marriage and Family*, 67(2), 315-327.

Awan, A. G., & Sadia, R. F. (2018). Female participation in labor force and its impact on household and national income: Evidence from Pakistan, *Global Journal of Management, Social Sciences and Humanities* 4(4), 773-784.

Awumbilla, M. (2006). Gender equality and poverty in Ghana: implications for poverty reduction strategies. *Geo Journal* 67, 149-161.

Aytac, I. A. (1985). The effect of women's labor force participation on marital instability. *Dissertations and Theses*. Paper 3428. 10.15760/etd.5307

Becker, G., Landes, E. M., & Michael, R. T. (1977). An economic analysis of marital instability. *Journal of Political Economy, 85*(6), 1141-1187.

Brady, D. (2006). Structural theory and relative poverty in rich Western democracies, 1969–2000. *Research in Social Stratification and Mobility,* 24(2), 153–175. doi:10.1016/j.rssm.2005.02.004.

Bremmer, D., & Kesselring, R. (2004). Divorce and female labor force participation: Evidence from times-series data and co-integration. *Atlantic Economic Journal,* 32(3), 175–190.doi:10.1007/bf02299436.

Cameron, L., Suarez, D. C., & Rowell, W. (2018). Female Labour Force Participation in Indonesia: Why Has It Stalled? *Bulletin of Indonesian Economic Studies, 1–37*. doi:10.1080/00074918.2018.15307

Cavapozzi, D., Fiore, S., & Pasini, G. (2019). Divorce and well-being. Disentangling the role of stress and socioeconomic status. *The Journal of the Economics of Ageing, 100212*. doi:10.1016/j.jeoa.2019. 100212.

Chen, Z., Wang, Z., & Jiang, H. (2019). Analyzing the heterogeneous impacts of high-speed rail entry on air travel in China: A hierarchical panel regression approach. *Transportation Research Part A: Policy and Practice, 127, 86–98*. doi:10.1016/j.tra.2019.07.004.

Clark, S., &Brauner-Otto, S. (2015): Divorce in sub-Saharan Africa: Are unions becoming less stable? *Population and Development Review* 41(4), 583–605. doi:10.1111/j.1728-4457.2015.00086.x.

Dagnew, G. W., Asresie, M. B., Fekadu, G. A., & Gelaw, Y. M. (2020). Factors associated with a divorce from the first union among women in Ethiopia: Further analysis of the 2016 Ethiopia demographic and health survey data. PLoS ONE 15(12): e0244014. https://doi.org/10.1371/journal.pone.0244014.

Dechter, A. R. (1992). *The effect of women's economic independence on union dissolution*, CDE Working Paper No. 92-28.

Dong, Xu. (2018). *Women's labor force participation and probability of getting divorced*. MPRA Paper No. 90561.

Duke-Natrebo, N.C. (2014). The impact of marital instability on early childhood development in Nigeria, *African Education Indices*, 7(1), 1-8.

Fokkema, T., & Liefbroer, A. C. (2004). Employment and divorce among Dutch women born between 1903 and 1937. *The History of the Family,* 9(4), 425–442. doi:10.1016/j.hisfam.2004.01.014.

Gadalla, T. M. (2008). Gender differences in poverty rates after marital dissolution: A longitudinal study. *Journal of Divorce & Remarriage,* 49(3-4), 225–238.doi:10.1080/10502550802222493

Gardner, R. G., Harris, T. B., Li, N., Kirkman, B. L., & Mathieu, J. E. (2017). Understanding "It Depends" in organizational research: A theory-based taxonomy, review, and future research agenda concerning interactive and quadratic relationships. *Organizational Research Methods*, 20(4), 610-638.

Giesselmann, M., & Schmidt-Catran, A. W. (2020). Interactions in Fixed Effects Regression Models. *Sociological Methods & Research, 004912412091493*. doi:10.1177/0049124120914934

González-Val, R., & Marcén, M. (2017). Divorce and the business cycle: A cross-country analysis. *Review of Economics of the Household, 15(3), 879–904*. doi:10.1007/s11150-016-9329-x

Hasyim, S., Zulhilmi, M., & Amri, K. (2019). Is there a causality relationship between law enforcement, crime rates, and economic growth? An empirical evidence from western Indonesia, *Regional Science Inquiry*, 11(2), 95-109.

Heimdal, K. R., &Houseknecht, S. K. (2003). Cohabiting and married couples' income organization: Approaches in Sweden and the United States. *Journal of Marriage and Family*, *65*(3), 525–538. https://doi.org/10.1111/j.1741-3737.2003.00525.x

Hilal, R. (2012). Vocational education and training for women and youth in Palestine: Poverty reduction and gender equality under occupation. *International Journal of Educational Development,* 32(5), 686–695. doi:10.1016/j.ijedudev.2012.02.008.

Hogendoorn, B., & Leopold, T., & Bol, T. (2019). Divorce and diverging poverty rates: A risk-and-vulnerability approach, *Journal of Marriage and Family*, DOI:10.1111/jomf.12629

Islam, M. A., Khan, M. A., Popp, J., Sroka, W., & Oláh, J. (2020). Financial development and foreign direct investment—The moderating role of quality institutions. *Sustainability,* 12(9), 35-56. doi:10.3390/su12093556.

Jan, M., & Hyder, A. (2018). Major causes of divorce among Muslim women in Kashmir, *International Journal of Academic Research and Development*, 3(1), 1329-1333.

Jiménez-Rubio, D., Garoupa, N., & Rosales, V. (2016). Explaining divorce rate determinants: new evidence from Spain. *Applied Economics Letters, 23(7), 461–464*. doi:10.1080/13504851.2015.10640

Kalmaz, D. B., & Giritli, N. (2020). Re-examining the impact of financial development on the economic growth of North Cyprus through the moderating role of the education sector. *Journal of Public Affairs*. doi:10.1002/pa.2517.

Kalmijn, M., DeGraaf, P. M., & Poortman, A-R. (2004). Interactions between cultural and economic determinants of divorce in the Netherlands, *Journal of Marriage and Family*, 66, 75–89.

Kaplan, A., & Herbst, A. (2015). Stratified patterns of divorce: Earnings, education, and gender. *Demographic Research*: 32, 949-982,DOI:10.4054/DemRes.2015.32.34

Karaalp-Orhan, H. S. (2017). What are the trends in women's labour force participation in Turkey? *European Journal of Sustainable Development,* 6(3), 303-312 *Doi: 10.14207/ejsd.2017.v6n3p303*.

Killewald, A. (2016). Money, work, and marital stability: Assessing change in the gendered determinants of divorce, *American Sociological Review*, 81(4), 696–719 DOI: 10.1177/0003122416655340http:// asr.sagepub.com.

Kutlar, A., Sarikaya, M., & Kabasakal, A. (2018). Explaining the Relationship between Female Labor Force Participation and Divorce in Turkey by means of panel regression and Granger causality. *Bilgi*, 20(2), 13-44.

Lee, Y-J., & Bumpass, L. (2006). Socioeconomic Determinants of Divorce and Separation in South Korea: Revisit to "Independence" Hypothesis, *Paper*, the 2006 Annual Meeting of Population Association of America, March 30-April 1, 2006.

MacDonald, D., & Dildar, Y. (2018). Married Women's Economic Independence and Divorce in the Nineteenth- and Early-Twentieth-Century United States. *Social Science History,42*(3), 601-629. doi:10.1017/ssh.2018.16

Mahmood Z, Anwer MS, Javaid A, Nawaz, S. (2016). Social and economic determinants of divorce in Pakistan: A case study of Multan District. *Journal of Culture, Society and Development*. 19(1):18-24.

Maslauskaite, A., Jasilioniene, A., Jasilionis, D., Stankuniene, V., & Shkolnikov, V. M. (2015). Socio-economic determinants of divorce in Lithuania: Evidence from register-based census-linked data. *Demographic Research*, 33, 871−908. DOI:10.4054/DemRes.2015.33.30.

Meinzen-Dick, R., Quisumbing, A., Doss, C., &Theis, S. (2017). Women's land rights as a pathway to poverty reduction: Framework and review of available evidence. *Agricultural Systems*. doi:10.1016/j.agsy.2017.10.009.

Miladinov, G. (2015). Towards an economic approach for studying of divorces in Macedonia, *Journal of Contemporary Economic and Business Issues* 2(1), 21-32.

Mo, L. (2016). A Review of the determinants of divorce: A cross-national perspective. *International Journal of Sociology of the Family*, *42*(1/2), 29–47. http://www.jstor.org/stable/44504669

Mocan, H. N. (1991). Age at marriage, divorce, fertility and labor force participation of women: A time series perspective, *The Journal of Interdisciplinary Economics,* 4, 1–16.

Mohlatlole, N. E., Sithole, S., & Shirindi, M. L. (2018). Factors contributing to divorce among young couples in Lebowakgomo. *Social Work*, *54*(2), 256-274. https://dx.doi.org/10.15270/52-2-637

Momen, M. A., Cheah, J-H., Ramayah, T., Ting, H., Chuah, F., & Cham, T. H. (2019). Moderation analysis: Issues and guidelines. *Journal of Applied Structural Equation Modeling*. 3(1), 1-11.

Montalto, C. P. (1994). Married Women's Labor Force Participation as Divorce Insurance. *Financial Counseling and Planning*, 5, 191-206.

Moore, K., & Sawhill, I. (1978) *Implications of women's employment for home and family life*." Pp. 201-225 in Ann Stromberg and Shirley Harkness (eds.), Working Women. Palo Alto, CA: Mayfield.

Mostafaei, A. (2016). Evaluating the factors affecting in divorce in the city of Mahabad. *Journal of Biosciences Biotechnology Research Asia*. 13(1), 369-374.

Owusu, J., Akandasiam, A. C., & Anyesepari, A. A. (2013). Microfinance schemes and poverty reduction among women in the northern region of Ghana. *International Journal of Humanities and Social Science* 3 (19), 99-108.

Patimo, R., Pereiro, T. G., & Calamo, R. (2015). About the determinants of female labor force participation in southern Europe. *Rivista Italiana di Economia Demografia e Statistica,* 39(1), 167-174.

Raz-Yurovich, L. (2012). Economic Determinants of Divorce Among Dual-Earner Couples: Jews in Israel. *European Journal of Population / Revue Européenne de Démographie, 28(2), 177–203*. doi:10.1007/s10680-012-9256-3.

Riany, Y.E., & Morawska, A. (2021). Financial and Work Burden, Psychosocial Functioning, and Family Interactions During the COVID-19 Pandemic in Indonesia: Effects on Child Outcomes. *Child Psychiatry Hum Dev*. https://doi.org/10.1007/s10578-021-01251-1.

Sadeghi, R., & Agadjanian, V. (2019). Attitude and Propensity to Divorce in Iran: Structural and Ideational Determinants. *Journal of Divorce & Remarriage, 1–22*. doi:10.1080/10502556.2019.15862

Sayer, L. C., & Bianchi, S. M. (2000). Women's Economic Independence and the Probability of Divorce. *Journal of Family Issues, 21(7), 906–943*. doi:10.1177/019251300021007005.

Scott, S. B., Rhoades, G. K., Stanley, S. M., Allen, E. S., & Markman, H. J. (2013). Reasons for divorce and recollections of premarital intervention: Implications for improving relationship education, *Couple Family Psychol*. 2(2), 131–145. doi: 10.1037/a0032025.

Vignoli, D., Matysiak, A., Styrc, M., &Tocchioni, V. (2018). The positive impact of women's employment on divorce: Context, selection, or anticipation? *Demographic Research*, 38(37), 1059-1110. DOI: 10.4054/DemRes.2018.38.37.

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