

Socioeconomic determinants of property crime offending in Ethiopia: convicted offenders in focus

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Abstract

Purpose – The purpose of this study is to investigate the socioeconomic determinants of property crimes on convicted offenders in the Chilga district correctional institution (CDCI).

Design/methodology/approach – This study conducted a socioeconomic determinant of property crimes on convicted offenders using quantitative research. Respondents consisted of a random sample of 170 convicted offenders in CDCI. This study used descriptive statistics, logistic regression and Pearson correlations for analyzing the quantitative data in CDCI.

Findings – The results of the study showed that the age at first engagement, educational status, offender's immediate economic situation and previous experience of the offender were the perceived reasons in one's major property crime offending. However, average monthly income, peer effect and family structure (grown up with) were found to be non-perceived reasons. Youths who are unmarried, illiterate and unemployed offenders had over three times more probabilities of committing theft than robbery and burglary in the winter season, especially in February, because of the determinants of illiteracy and unemployment such as negligence for the future life. Furthermore, the convicted offenders who were illiterate, unemployed and raised by single parents have engaged in theft for the first time, but burglary and robbery by employed and literate offenders in more probable.

Originality/value – This paper takes a fresh perspective on knowledge about property crime and economic as well as criminological theories using various bodies of academic research. This paper's insight will be helpful to fill the literature gaps; there are lot research studies with little investigations addressing to the issue of the determinants of property crime. It will also be useful for policymakers to mitigate the determinant of property crime.

Keywords Unemployment, Income, Theft, Burglary, Family structure, Robbery, Differential association theory, Social bond theory, Strain theory

Paper type Research paper



1. Introduction

Safety and security are the most important things for the survival of any society (Meron, 2011). The safety of a society includes personal safety (safety of life and liberty) and safety of property (Nirmala and Serkaddis, 2009). Since the early days, crime had been a disturbing threat to the personality, property and lawful authority of mankind (Louis *et al.*, 1981; Walmsley, 2016). Crime against property is an act of obtaining property of another person by illegal means (Freeman, 1996) and it involves either the theft or the destruction of property (Andagachew, 1988). Theft can take the form of burglary, larceny or fraud, and destruction of property occurs in the crimes of arson and vandalism (Conklin, 2004). Nevertheless, property crime offenders may vary one from another based on their tendency and frequency of violating the law and offending against the property of others (Ilongo, 2009). Scholars believed that some of the property offenders violate the law occasionally, while others make a career out of it (Andargatchew, 1988), but some violators of law do recognize the importance of private property (Fasil, 2009). Usually, occasional property crime offenders faced different problems and encountered a sophisticated life, which, in turn, enforced them to commit a crime against property (Freeman, 1996).

Various researchers in different disciplines have revealed that there are interrelated factors that increase the likelihood of an individual to develop a deviant and offending behavior (Merton, 1966). For example, routine activity theory (Cohen and Felson, 1979) and crime pattern theory (Brantingham and Brantingham, 1993) suggest that the occurrence of a crime requires the convergence of three factors in time and space: a motivated offender, a suitable target and the absence of a capable guardian. These situations may affect property (Kitchen, 2006), poverty (Sampson and Laub, 1993), disrupted families (Tonry *et al.*, 1991; Land *et al.*, 1990), inadequate socialization (Gottfredson and Hirschi, 1990), the presence of criminal opportunities (Blau and Schwartz, 1984) and frequently committed property crimes (Uggen, 2000; Lochner and Moretti, 2004; Kitchen, 2006; Ilongo, 2009; Nega and Berhanu, 2015). These sorts of property crimes may be determined by socioeconomic conditions: family background, education, employment, peer effect and family supervision (Andagachew, 1988; Bhushan, 1991; Conklin, 2004; Freeman, 1996; Lochner and Moretti, 2004; Nega and Berhanu, 2015).

In Ethiopia, studies conducted on property crime and its socioeconomic determinants are limited (Nega and Berhanu, 2015) and the studies that considered property crime in the local context are less investigated (Nega, 2011). However, some researchers studied property crime and parcel of violence (Meron, 2011). Other studies have quantitatively focused only on the relations between property crime rate and some selected demographic variables (Meron, 2011; Nega, 2011; Andargatchew, 1988). These studies concerned about the ups and downs of property crime quantitatively, rather than studying where the criminal behavior of property crime offenders comprehensively attributed or sourced from, and they could not study some selected property crimes in correctional institutions.

Therefore, this paper was intended to formulate the perceived reasons for committing property crime, to investigate the socioeconomic determinants of property crime and associated with demographic variables with a property crime in general and socioeconomic determinants on theft, burglary and robbery in particular to fill their literature and methodological gaps.

1.1 Theory and prior findings

Before stating prior empirical pieces of literature, we thoroughly describe and identify that differential association theory (DAT), strain theory (ST) and social bond theory (SBT) concern the most significant of the topics discussed. The first two theories have been

developed to examine why people engage in crime. We then focus on the factors that push or entice people into committing criminal acts in general and property crime offending in particular. The other one theory asked a question of why people conform.

DAT is a theory that explains how it was that criminals came to commit acts of deviant behavior and believe that the behaviors of an individual are influenced and shaped by other individuals they associate with (Sutherland, 1970, 1974). To examine more, this theory has four tenets that describe the acts of the criminal as learned behaviors. First, DAT focused on criminal behavior is learned in interaction with others in a process of communication (Sutherland, 1974), which means individuals learn good behavior from their social environment (Tonry *et al.*, 1991). In contrast, they learn also their deviance (Nega, 2011; Jibat and Berhanu, 2015). These are the products of the influence of their primary reference groups: family, friends, peers and utmost intimates (Tonry *et al.*, 1991; Nega *et al.*, 2015; Akers, 1998; Loeber and Stouthamer-Loeber, 1986; Wright and Wright, 1994; Bayer and David, 2009; Glueck and Glueck, 1950; Don Weatherburn, 2001).

Second, it states that differential associations vary in frequency, duration, priority and intensity (Gaylord and John, 1988; Sutherland, 1939, 1974). The principle suggests that there is a varying, but direct, relationship that affects how often, for what duration, how important and how intense deviant behavior occurs. For example, if the individuals who have frequently and intensely contacted the criminals for a long period, they might have higher probabilities to commit the same crime (Glueck and Glueck, 1950; Don Weatherburn, 2001; Byer and David, 2009; Carrell and Hoekstra, 2010).

Third, it illustrates learning criminal behavior involves learning the techniques, motives, drives, rationalizations and attitudes (Matsueda, 1988). This tenet also describes criminals are not inherently deviant but they learned the deviance (Don Weatherburn, 2001; Byer and David, 2009). They were taught to rationalize what they once knew to be unacceptable behavior to acceptable behavior (Sutherland, 1970). For example, many property crime offenders admit that the first time they committed property crime they felt guilty. The guilt comes from their socialization of societal norms that theft, robbery and burglary are unacceptable. This principle was also supported by Warr and Stafford (1991, p. 853) and said that Sutherland's theory's primary feature is its focus on how attitudes are transferred between individuals resulting in a transmission of delinquent behaviors between actors.

Fourth, a person becomes a criminal when there is an excess of definitions favorable to violation of law over definitions unfavorable to violation of the law (Sutherland, 1970; Short, 1957; Gaylord and John, 1988); this means if these definitions of the criminal acts as acceptable are stronger than the definitions unfavorable to deviant behavior, then the person is likely to commit a criminal act. Accordingly, criminal behavior, like any other learned behavior is not only learned through observance but also through assorted methods (Glueck and Glueck, 1950; Don Weatherburn, 2001).

SBT, a major social control theory, wants to describe why individuals do not commit a crime and instead conform to the conventional norms and rules of the society (McLean, 2012, p. 6). The approach of SBT is also based on the premise that socioeconomic status has little to do with determining delinquent behavior, but rather attachment and commitment (Hirschi, 1969). By its inception, there are four interrelated constituting elements or components of SBT: attachment, commitment, involvement and belief (Hirschi, 1969, Lilly *et al.*, 2007).

First, attachment is used in reference to the internalization of the norms of the society, more specifically to the closeness experienced with family, friends and teachers (Hirschi, 1969, Lilly *et al.*, 2007; Viladimir, 2016; Bernard *et al.*, 2010, p. 208; Loeber and Stouthamer-Loeber, 1986; Wright and Wright, 1994). Wright and Wright (1994) revealed that single

families (broken families) produce more delinquent children than two-parent families (intact family). Indeed, the very absence of intact families makes gang membership more appealing (Muhlenberg, 2002). A study shows that a negative correlation of the high level of parental attachment with children has had a tendency of committing delinquent acts (Viladimir, 2016, 2016; Junger –Tas, 1992; Brook *et al.*, 1999; Arnett and Balle-Jensen, 1993; Harada, 1995; Martens, 1992). Hirschi (1969) explained this relationship by depicting that the children who identified with their parents would usually engage in dialogue to discuss any personal issues or anxieties faced by both of them because it is the vessel that is necessary for an individual to internalize values and norms (Bernard *et al.*, 2010, p. 208).

Another constituting element of SBT is commitment. It is the degree to which the individual's self-interest has been invested in a given set of activities (Lilly *et al.*, 2007, p. 104). These activities could include such things as gaining an education, starting and building a business and acting a certain way to uphold a reputation (McLean, 2012, p. 7). Essentially when an individual is striving to achieve a good education, aspiring to have a prestigious career and gaining status or respect in one's community, not being delinquents will be a rational choice (Hirschi, 1969) because of favorable attitudes toward education, and gaining a good education were in positive correlation with lowered rates of delinquency (Rosenbaum and Lasley, 1990; Usher, 1997; Lochner and Moretti, 2004). Nevertheless, if an individual has faced illiteracy, there will be higher probabilities to commit a crime against property (Freeman, 1996; Huhata, 2012; Christiana, 2011, Lochner and Morett, 2004; Ilongo, 2009). In sum, education is also used as a deterrent factor to reduce criminal behavior and activity by increasing the returns to legitimate work and raising the opportunity cost of illegal behavior (Lance *et al.*, 2001, Freeman, 1996; Grogger, 1998; Becker and Mulligan, 1997; Fajnzylber *et al.*, 2002). Involvement is another constitutive component of social bonds; it represents the time spent in conventional activities (McLean, 2012; Viladimir, 2016; Hirschi, 1969). Those who are heavily involved in conventional activities will simply not have enough time to engage in delinquent or criminal behaviors (Payne and Salotti, 2007, p. 555). Other studies also assured that the person involved in conventional activities (working hours, plans, appointment, etc.) have had less opportunity to commit deviant acts (Cullen and Agnew, 2006; Viladimir, 2016; Huhata, 2012; Christiana, 2011; Freeman, 1996; Becker and Mulligan, 1997; Fajnzylber *et al.*, 2002; Lochner and Moretti, 2004).

The last not the least constituting component of social bond is belief. It refers to the extent to which an individual is inclined to obey society's rules. Hirschi (2002) stated that the one who believes in laws and conventional social values as a mechanism of social control could greatly mitigate one's likelihood to become criminal and delinquent.. SBT articulates a causal order for a belief that begins with attachment to parents produces an individual's approval for authority (McLean, 2012, p. 7). In turn, an individual who has a strong belief will be less likely to engage in criminal behavior (Payne and Salotti, 2007, p. 555).

Another theory, such as the thrust of strain theoretical agenda is that stress and frustration are the products of failed aspirations to increase the prospects for norm violation (Brown *et al.*, 2010; Merton, 1938; McLaughlin *et al.*, 2001). According to this theory, people who engaged in property crime were determined by the individuals who cannot get something through legitimate channels. This means property crime is created when the conflict between the institutionalized means and culturally specified goals exists. For example, offenders need to commit burglary, robbery and/or theft (desired goals) because of a shortage of money and unemployment (conventional means). To support this idea, 33 of studies around the world found that there is a positive relationship between unemployment and crime: as unemployment raises, property crimes rise as well (Agnew, 2001; Don Weatherburn, 2001; Uggan, 2000; Brody *et al.*, 2001; Freeman, 1996; Becker and Mulligan,

1997; Fanjnzylber *et al.*, 2002; Lochner and Moretti, 2004; Brody *et al.*, 2001; Raphael and Winter-Ember, 2001; Cook and Zarkin, 1985; Douglason, 2014) while 19 studies found negative or no relationships between crime and unemployment rate (Baharom and Habibullah, 2009; Thornberry 1984; Deepak, 2013).

The basic premises of these DAT, ST and SBT are well integrated and not committed conflicting; rather, their variables have been corresponded and combined (Payne and Salotti, 2007; McLean, 2012) to assist empirical findings to socioeconomic determinants on property crime. Payne and Salotti (2007) on their comparative analysis and McLean (2012) on exploratory studies of DAT and SBT assured that there are significant relations between DAT, ST and SBT in the prediction of crime. The current study has taken these theories into account to test their relations to major property crime offending: theft, burglary and robbery.

2. Methodology

2.1 Respondent

We used a cross-sectional study design with a sample survey to select respondents from Chilga district correctional institution (CDCI) in Northwest Ethiopia. The reasons we preferred to use a sample survey for the current study was that it provides a quantitative or numeric description of what and how the socioeconomic conditions could determine property crime offending (Creswell, 2009; Bryman, 1988) and the data had to be easily quantified and analyzed statistically (Fowler, 2002; Ahuja, 2010, p. 137). Taking this into account, we first employed inclusion and exclusion criteria before selecting the respondents: convict of one of the three major property crimes (theft, burglary and robbery) and being incarcerated at CDCI as inclusion criteria, and convicts other than major property crimes and convicts not incarcerated at CDCI as exclusion criteria. After using such criteria, we selected respondents using $n_0 = N/1 + N(e^2)$, where N is the number of major property crime offenders, e is the margin of error and n_0 is the sample size. After computing, we got 170 samples from 302 property crime convicted offenders.

We eventually used to ask questions based on our operational definition about crime against property – theft, burglary and robbery – because these take-up the largest volume of all crimes in most societies (Nega, 2011); these were the age-old appealing social problems of mankind (Meron, 2011) and are the first three committed property crimes in CDCI (2017).

We employed a systematic random sampling technique to select major property crime offenders for selecting structured interviewees. From the total major property crime offenders of the correctional institution, respondents were selected after the study population was defined, the sample size was decided, the population was listed, sampling fraction was calculated and the first unit was selected. The rationale behind using this sampling technique was its potential of reducing human bias in the selection of cases to be included in the sample and its provision of a sample that is highly representative of the population being studied (Creswell, 2009).

2.2 Procedure and interview

Before conducting a research, Informed consensus took place and as a mechanism that, to some extent, dealt with ethical issues, as it clearly stated the rights of the respondents to participate voluntarily and to withdraw at any time whenever they wanted to so that they had not to be coerced to participate in the research. They showed their interests to be interviewed, we conducted structured interviews in the form of a closed-ended questionnaire. Before developing the questionnaire, works of literature related to indicators and measurement of the topic was thoroughly examined and items were prepared. For

example, the indicators of socioeconomic determinants developed by Bruna *et al.* (2006) were contextually adapted and used in this study, and property crimes were measured by the convicted offenders who committed at least one kind of theft, burglary and/or robbery (Nega, 2011; Meron, 2011; Chilga district administration, 2017).

We structured the questionnaire into four sections. The first section contained items that dealt with sociodemographic characteristics of the respondents (such as age, marital status, season of engagement, level of education and level of employment). The second section contained the perceived reasons (such as average monthly income, age at the first engagement, educational status of the offender, previous experience and peer effect) on property crimes. The third section comprised the association between property crimes with sociodemographic variables. The last section comprised the determinants of property crimes.

Before using questionnaires for the actual study, a pilot study was employed to check the reliability and validity of the questionnaires. At the beginning, we dispatched the drafted questionnaire (meant for the 30 selected respondents) to the group of experts and discussed with them (Takusa woreda justice institution personnel including judges, public prosecutors and detectives who were specialists in the field of crime and related issues), and family comments and suggestions were collected to assess the likelihood that a question will be misunderstood or misinterpreted by respondents and to check whether the questionnaire provides adequate coverage of the topic or not. At this time, we examined the careful design of the individual questions, the clear layout of the questionnaire and a clear explanation of the purpose of the questionnaire to ensure the reliability and validity of the questionnaire ($\alpha = 0.89$). Based on the feedback from the pilot test, we have taken corrective measures.

2.3 Measure

2.3.1 Demographic information. Participants' age; marital status; educational status; current employment status; property crime (theft, burglary and robbery); the season of offending based on summer (June, July, August), spring (September, October, November), winter (December, January, February) and autumn (March, April, May) were surveyed.

2.3.2 Perceived reasons. We developed the six items of perceived reasons indicating the socioeconomic determinants of property crime. They (perceived reasons) included the following questions: "How frequently do you perceive average monthly income affected to commit property crime?", "How frequently do you have a perception about the age at first engagement on property crime", "How frequently do you perceive the status of education had an effect on property crime offenders", "What perception have you the previous experiences enforced to offend property crime?", "What perception do you have the effect of peer effect on property crime? The above first, second and third questions offered responses using the following five-point Likert scale: 1 = always, 2 = often, 3 = sometimes, 4 = occasionally, 5 = never. However, the fourth and fifth questions offered responses using the following five-point Likert scale: 1 = not at all, 2 = a little bit, 3 = somewhat, 4 = quite a bit and 5 = extremely. The Cronbach's alpha of the first three five-point Likert scale items of the questionnaire was $\alpha = 0.82$ but the last two Likert scales was $\alpha = 0.79$.

2.3.3 Socioeconomic determinants. The socioeconomic determinants of property crime measured were developed by Douglasson (2014) and Bruna *et al.* (2006) and were adapted and used in this study based on the contextual understanding of the local community. Educational status of the offender, family supervision, family's economic situation, peer effect, crime experiences, grown up with and employed status were identified as socioeconomic determinants to test DAT, ST and SBT. Each socioeconomic determinant has been examined using Pearson correlation because it measures the strength and degree of a supposed interrelationship between two interval variables. For example, "Is there a

relationship between educational status and property crime offending?”, “Is there a relationship between peer effect and property crime offending?” and so on.

2.4 Data analysis

After completing and cross-checking the data, these were organized in line with the research questions of the study and analyzed quantitatively.

Quantitative data was analyzed through Statistical Package for Social Science (SPSS) version 20 after the analysis level of each variable was identified. We used three levels for analyzing the quantitative data. In univariate analysis, descriptive statistical analysis was conducted. Descriptive frequency tables were used to observe the patterns of the respondent's response to each variable and to know the frequency and character of the distribution of the data. In bivariate analysis, Pearson correlation was used to test the relationship between socioeconomic determinant variables and property crime offending i.e. whether the independent variables and dependent variables correlated with each other, and even to measure the degree and direction of a relationship between variables. In multivariate analysis, multiple and logistic regression was used to measure the relative level of the prediction of independent variables (educational status, employment status, monthly income, experience, marital status, immediate economic situation, family supervision) to the dependent variable (property crime offending) as well as to measure the contribution of the independent variables in explaining the variation in the dependent variable.

3. Results

3.1 Demographic background

To identify the sociodemographic variables of the samples from the target population, six variables such as the age, marital status, educational status, major property crime, employment status and season of property crime committed were used.

As shown in [Table 1](#), most of the respondents were youths (67.1 per cent), single (46.5 per cent), illiterate (52.9 per cent), committed theft (70.6 per cent), unemployed (87.1 per cent) and committed in the winter season (December, January, February).

3.2 Perceived reasons to engage in property crime offending

To examine the perceived reasons to engage in property crime offending, we used average monthly income, age at the first engagement, educational status of the offender, grown up with, immediate economic situation, previous experience and peer effect as the variables.

As depicted in [Table 2](#), age at first engagement, with controlling other predictors, predicted property crime offending significantly ($\beta = -0.195$, $t = -2.726$, $p = 0.007$). The standardized beta value, -0.195 , indicates that an increase of one standard deviation in the predictor (age at first engagement) will result in a change of -0.195 standard deviations in the major property crime offending. Similarly, the educational status of the offender also had a significant negative effect on major property crime offending. It predicts major property crime offending at $\beta = -0.221$, $t = -3.200$, $p = 0.002$. The standardized coefficients show that the lion's share of the variance from negatively predicting variables is taken up by the educational status.

The immediate economic situation of the offender is also another variable which had a positive effect on property crime offending ($\beta = 0.190$, $t = 2.451$, $p = 0.015$). The standardized beta value, 0.190 , indicates that an increase of one standard deviation in the predictor (immediate economic situation) will result in a change of 0.190 standard deviations in the major property crime offending. In relation to previous experience, it also statistically predicted property crime offending ($\beta = 0.243$, $t = 3.457$, $p = 0.001$).

Variable	Frequency	(%)	Cumulative percent	Socioeconomic determinants
<i>Age</i>				
Child Delinquent (<=18)	22	12.9	12.9	
Youth (19-29)	114	67.1	80.0	
Adult (>29)	34	20	100	
Total	170	100	–	
<i>Marital status</i>				
Never married	79	46.5	46.5	
Married	61	35.9	82.4	
Divorced	16	9.4	91.8	
Separated	14	8.2	100	
Total	170	100	–	
<i>Educational status</i>				
Illiterate	90	52.9	52.9	
Read and write only	28	16.5	69.4	
Primary education(1-8)	47	27.6	97.1	
Secondary education(9-12)	5	2.9	100	
Total	170	100	–	
<i>Major property crime committed</i>				
Theft	120	70.6	70.6	
Burglary	36	21.2	91.8	
Robbery	14	8.2	100	
Total	170	100	–	
<i>Employment status</i>				
Unemployed	148	87.1	87.1	
Employed	22	12.9	100	
Total	170	100	–	
<i>Season</i>				
Summer (June, July, August)	55	32.4	32.4	
Winter (December, January, February)	107	62.9	95.3	
Spring (September, October, November)	7	4.1	99.4	
Autumn (March, April, May)	1	6	100	
Total	170	100	–	

Table 1.
Demographic characteristics of the respondents ($n = 170$)

Hence, among the perceived factors for property crime offending, age at first engagement, educational status, offender's immediate economic situation and previous experience of the offender were the perceived reasons in one's major property crime offending. However, average monthly income, peer effect and family structure (grown up with) were found to be non-perceived reasons.

3.3 Associations between property crime and sociodemographics

We associated the demographic characteristics of the respondents with the property crime offending using adjusted and unadjusted odds ratios.

Table 3 shows the logistic regression analysis of property crimes – unadjusted and adjusted odds ratios with each demographic variable of the respondents. The result could depict that the convicted male offenders who were in the age between 19 and 29 committed property crimes more than those below 18 and above 29 years old. In the case of marital status, single respondents were over three times more likely to commit property crimes in

Table 2.
Perceived reasons for
property crime
offending of the
offenders (*n* = 170)

Model	Unstandardized coefficients		Standardized coefficients		Sig.
	B	Std. error	Beta	T	
1					
Constant	2.803	0.726	–	3.859	0.000
Average monthly income	0.000	0.000	–0.143	–1.977	0.050
Age at first engagement	–0.053	0.019	–0.195	–2.726	0.007
Educational status of the offender	–0.143	0.045	–0.221	–3.200	0.002
Grown up with	0.032	0.234	0.009	0.137	0.892
Immediate economic situation	0.438	0.179	0.190	2.451	0.015
Previous experience	1.222	0.353	0.243	3.457	0.001
Peer effect	–0.046	0.183	–0.020	–0.253	0.801

Notes: *P* < 0.05; T = total

Table 3.
Logistic regression
analysis of property
crimes – unadjusted
and adjusted odds
ratios with each
demographic
variables (*n* = 170)

Determinants	Property crime offending	
	Adjusted odds ratio [AOR] (95CI)	Unadjusted odds ratio [UOR] (95CI)
<i>Age</i>		
Below 18 years old (ref)	1.00	1.00
Youth (18-29)	1.27 (1.01-1.55)***	1.81 (1.26-1.97)***
Adult (>29)	1.11 (1.01-1.33)***	1.21 (1.11-1.54)***
<i>Marital status</i>		
Married (ref)	1.00	1.00
Single	3.66 (2.27-6.71)***	4.35 (3.99-6.45)***
Divorced	2.17 (1.89-3.88)	3.01 (2.71-4.88)
Separated	1.22 (0.67-3.11)***	2.01 (1.99-3.95)
<i>Level of education</i>		
Illiterate (ref)	1.00	1.00
Read and write only	0.54 (0.25-0.66)***	1.55 (1.23-3.01)**
Primary education and below (1-8)	0.45 (0.19-0.75)***	0.87 (0.27-1.63)***
Secondary education (9-12)	0.59 (0.31-0.77)	0.89 (0.41-1.19)***
<i>Property crime committed</i>		
Theft (ref)	1.00	1.00
Robbery	0.99 (0.67-1.21)***	0.99 (0.64-1.28)***
Burglary	0.23 (0.11-0.44)***	0.37 (0.11-0.67)***
<i>Employment status</i>		
Employed (ref)	1.00	1.00
Unemployed	6.11 (4.71-8.28)***	4.68 (3.91-6.34)***
<i>Season</i>		
Summer (June, July, August) (ref)	1.00	1.00
Winter (December, January, February)	5.13 (4.11-6.28)***	3.18 (2.38-4.84)***
Spring (September, October, November)	1.66 (0.97-2.37)**	1.09 (0.88-2.22)***
Autumn (March, April, May)	1.13 (0.71-2.24)***	1.42 (1.21-2.66)***

Notes: Ref = Reference category; ***p* < 0.05; ****p* < 0.001; CI = confidence interval

the adjusted ratio of 3.66 (95per cent CI, 2.27 to 6.71) and more than four times in an unadjusted ratio of 4.35 (95per cent CI, 3.99 to 6.45). In relation to education, the convicted offenders who were illiterate are two times likely to commit property crime than respondents who completed primary education in the adjusted ratio (AOR, 0.45, 95per cent CI, 0.19 to 0.75).

It seems, therefore, that the educational background of an individual may have anonymous potential to predict one's offending behavior in the form of theft, burglary and robbery. This means that if one has a poor educational background, it is likely for him/her to engage frequently in major property crimes. In contrast, if one is well in his/her education, the effect would probably abstain from such an anti-social act. In other words, as the year of schooling completed goes high, it is likely for reduced negligence and offending frequency to be lowered.

On the kind of committed property crimes, the convicted offenders were four times less likely to commit burglary compared with committing theft in the adjusted ratio of 0.23 (95 per cent CI, 0.11 to 0.44) and three times less likely to commit theft and robbery in the unadjusted ratio of 0.37 (95 per cent CI, 0.11 to 0.67). In the level of employment status, unemployed convicted offenders committed property crimes six times in an adjusted ratio of 6.11 (95per cent CI, 4.71 to 8.28) and four times in an unadjusted ratio of 4.68 (95CI, 3.91 to 6.34). Lastly, the adjusted and unadjusted odds of offending property crime by the convicted offenders in winter season (December, January and February) are 5.13 and 3.18 times compared to summer season (June, July and August) (AOR, 5.13, 95CI, 4.11 to 6.28; UOR, 3.18, 95CI, 2.38 to 4.84). Thus, youths (18-29), unmarried, illiterate and unemployed male offenders were more than three times likely to commit theft than burglary and robbery in the winter season, especially in February, due to illiteracy and unemployment.

3.4 Determinants of property crime

To identify the determinants of property crime, we carried out the correlation by examining the relations of the determinants with property crime.

As shown in Table 4, a positive correlation of the high level of illiteracy has had a tendency of committing theft ($r = 0.271, n = 170, p < 0.001$) but literacy to burglary ($r = 0.019, p < 0.01$). In the case of family supervision, the offenders who were supervised or controlled by their parents had lesser likely to commit theft ($r = 0.314, n = 170, p < 0.01$), but higher likely to burglary ($r = 0.520, n = 170, p < 0.01$). Besides, the offenders who were grown up with the families who faced an economy problem committed violent crime such as burglary ($r = 0.718, n = 170, p < 0.05$, as peer pressure to theft ($r = 0.170, n = 170, p < 0.001$).

The experiences of the offenders are also considered as other socioeconomic determinants of property crime offending. For example, the convicted offenders who engaged in the first time were committed to theft ($r = 0.306, n = 170, P < 0.001$), but engaged in more than one time were offended of burglary ($r = 0.430, n = 170, p < 0.05$) and robbery ($r = 0.333, n = 170, p < 0.001$). It is also evident that the convicted offenders who were grown up with single parents committed theft ($r = 0.362, n = 170, p < 0.001$). In relation to employment, although offenders who had employment were committed to theft ($r = 0.019, p < 0.01$), unemployed offenders were offended of burglary ($r = 0.071, n = 170, p < 0.05$) and robbery ($r = 0.342, p < 0.01$).

Therefore, the convicted offenders who were illiterate, unemployed and grown up with single parents have engaged in theft crime for the first time. Nevertheless, the offenders who were employed and literate but supervised by families, who are low income group, committed burglary and robbery.

Determinants	Theft	Property crimes Burglary	Robbery
<i>Educational status of the offender</i>			
Illiterate	0.271*** (0.000)	0.561* (0.030)	-0.662* (0.007)
Literate	-0.234** (0.002)	0.019** (0.005)	-0.523* (0.520)
<i>Family supervision</i>			
Presence	-0.314** (0.008)	0.520** (0.003)	0.540** (0.000)
Absence	1 (0.007)	-329* (0.004)	-193* (0.420)
<i>Family's economic situation</i>			
Low	0.287*** (0.000)	0.718* (0.040)	0.011* (0.030)
Medium	0.217** (0.004)	0.121** (0.012)	-0.495* (0.061)
High	-0.152** (0.012)	-0.419* (0.260)	-0.680** (0.053)
<i>Peer effect</i>			
Presence	0.170*** (0.000)	0.383* (0.020)	0.381*** (0.030)
Absence	-2.41* (0.009)	-0.770* (0.110)	-0.810* (0.660)
<i>Crime experiences</i>			
The first time	0.306** (0.000)	0.850** (0.030)	-0.770* (0.281)
More than one time	0.234* (0.041)	0.430* (0.020)	0.333*** (0.000)
<i>Grown up with</i>			
Both parents	-0.182* (0.005)	-0.661* (0.0140)	-0.021* (0.223)
Single parents	0.362*** (0.000)	0.126** (0.028)	0.119** (0.030)
<i>Employed status</i>			
Employed	0.019** (0.005)	-0.032 (0.0261)	-0.201* (0.312)
Unemployed	252*** (0.000)	0.071* (0.046)	0.342** (0.001)

Notes: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Table 4.
Correlations between
socioeconomic
determinants with
property crime

4. Discussion and conclusion

The main objective of the current research was to examine the socioeconomic determinants of property crime offending in the case of convicted offenders. At this point, the current findings are presented in relation to relevant findings of previous researches in the area, specifically related to socioeconomic determinants of major property crime offending. The major findings are analyzed and discussed with various kinds of literature, sociological, economic and criminological theories.

By its inception, the present study found that the age at first engagement, educational status, offender's immediate economic situation and previous experience of the convicted offenders were the perceived reasons in one's property crime offending. Nevertheless, the average monthly income, peer effect and family structure (grown up with) were found to be non-perceived reasons for property crime – but it does not mean that they do not have any role in committing property crimes. By its finding, ST has now a significant relationship with perceived reasons for property crime in such a way that the offenders who were encountered illiterate, low income, previous experiences about crime were used as convenient means to commit theft, burglary and/or robbery. Nevertheless, social learning and social bond theories have fewer relations compared to ST. For example, the offenders perceived that peer effect has not enforced them to commit major property crime, but rather their previous experiences and the challenges of poverty and illiteracy. The offenders also assured that low attachment with their family or grown up with the single family has never

been a perceived reason for committing a crime against property, although Payne and Salotti (2007) said someone who is attached to others will not want to disappoint or offend them and will not commit acts that would do so to the fear of losing those attachments. By these facts, ST had a significant relationship with the perceived reasons for property crime offending, but not to social learning and social bond theories.

Similarly, some studies also affirmed the finding that the economic problem, illiteracy and previous experiences were the perceived reasons in the endeavor of identifying property criminality (Sah, 1991; Fajnzyblber *et al.*, 2002; Bhushan, 1991; Freeman, 1996). To explain more in offenders' previous experiences, a research conducted by Payne (2007) found that more frequent and serious prior offending (both charged and uncharged) is linked to an increased risk of reoffending. Marvell and Moody (1991), Moffitt (1993) and Brame and Piquero (2003) found official crime rates rising in adolescence to a peak in the late teenage years and then declining rapidly through adulthood.

On the issues of educational status, another study conducted by Freeman (1996), Huhata (2012), Christiana (2011), Lochner and Moretti (2004), Ilongo (2009) depicted several reasons to believe in illiteracy as a perceived factor to enhance criminal behavior and activity by increasing the returns to illegitimate work. This means that illiteracy is always not a negation of crime in general and property crime in particular (Barr, 1992; Ilongo, 2009; Murry *et al.*, 2006; Wright and Wright, 1994) because it decreases our stances in safeguarding property criminality (Fajnzyblber *et al.*, 2002; Lochner and Moretti, 2004), reduce the value of society and demotes the virtue of hard worker and honesty (Usher, 1997) and hinders to generate benefits beyond the private return received by an individual (Lochner and Moretti, 2004).

In relation to economic issues, a study conducted by Brody *et al.* (2001), Freeman (1996), Becker and Mulligan (1997), Fajnzyblber *et al.* (2002), Lochner and Moretti (2004) confirmed that the economically stressed parents provide less support and monitoring and higher level of inconsistent and harsh discipline than more affluent parents. According to researchers such as Agnew (2001) and Don Weatherburn (2001), the more individuals face immediate economic problems, the more likely the individual to offend. Furthermore, Uggen (2000) stated that having a good job – more stable, higher wages, better quality – is associated with even less crime than having a bad job, though even a bad job is still associated with less crime than unemployment at a list among high-risk samples. The sociological literature (Merton, 1938) instead emphasized that lower relative income causes feelings of deprivation (income inequality) and strain (because of the insufficiency of the available income to fulfill one's needs and wants), which, in turn, led the poorest individuals to look for illegitimate channels to achieve their economic success. The finding is also supported by the study of Niknami (2012) that examines the effect of relative income on burglary or robbery crime.

The current study also found that the convicted offenders who were youths (18-29 years old), unmarried, illiterate, employed and grown up with single parents have engaged in theft crime in February because of the effect of illiteracy, less social bond, negligence for the future life and the coast of illegal action. Nevertheless, the offenders those who were unemployed, literate but have been supervised by families with the low economy, and was faced by peer effect, committed burglary and robbery. This novel finding has a significant relation with the basic premises of SLT, ST and SBT. More specifically, SLT's major assumptions could determine the determinants (not perceived) of property crime offending on the situation that the offenders have learnt some strategies and/or techniques on to steal property (theft), when to break doors, windows or others (burglary), where to snatch property (robbery) from their peers, and lack of access for getting money for filling their desired goals were the determinants for committing burglary and robbery, as lack of

attachment, especially grown up with single families to theft. SBT depicted that people will frequently behave antisocially unless they are trained not to. It attempts to explain ways to train people to engage in law-abiding behavior and vice versa. This theory also entirely assured that property crime is the result of insufficient attachment and commitment to others (Agnew, 2002). Other criminological theories such as containment theory also revealed that if a society is well integrated, with well-defined social roles and limits on behavior, effective family discipline and supervision and reinforcement for positive accomplishments, crime will be contained (Reckless, 1961).

The basic premises of the focal concern theory also indicated the determinant of property crime offending for the offenders who are low income group in the way that achieving the ends that are valued in their culture through the behaviors that appear to be the most feasible means of obtaining those ends. In addition to that, Wright and Wright's (1994) research on family life, delinquency and crime shows that single-parent families produce more delinquent children than two-parent families. Indeed, the very absence of intact families makes gang membership more appealing (Muhlenberg, 2002; Lance *et al.*, 2001; Freeman, 1996; Grogger, 1998).

Other scholars such as Glueck and Glueck (1950) Hetherington and Stanley (1999) also depicted that family structure or the living arrangement of the offender during his childhood is assumed to be one of the family characteristics that has impacted on one's burglary or robbery offending. The problems may vary by family structure: the rates for such behavior problems increase from 5 per cent among children from intact, nuclear families to 10 per cent, 15 per cent of children from single parent or divorced families. Other researchers such as Hirschi and Gottfredson (1983) and Rutter and Silberg (2002) investigated that the family environment in which a child is born has the most influential and long-lasting power over his/her development and future life courses whether they will have committed crimes or not, and the early family context not only influences the kind of later environments children likely to encounter but also the skills, behaviors and attitudes in which they will interact with the environments (Brame and Piquero, 2003; Hirschi and Gottfredson, 1983; Marvell and Moody, 1991; Moffitt, 1993). In contrast, a study conducted by Simon and Conger (2007), Byer *et al.* (2009) and Carrell and Hoekstra (2010) assured that various parenting behaviors including parental warmth, monitoring and consistent discipline were all found to be inversely related to the chances that a child would become offenders.

This study learned that the determinants of socioeconomic issues affected convicted offenders without the discrimination of any sociodemographic variables to commit property crimes (theft, burglary and robbery); however, it might have differed the extent and magnitude of the problems. This study also provides evidence that the perceived reasons of property crime offending could confirm the basic assumptions of ST but refute to DAT and SBT. However, the determinant of property crime could affirm the basic premises of DAT, SBT and ST. Both qualitative and quantitative findings would permit lawyers and judges and policymakers to have an effective legal intervention. This study also warrants further research studies to test or extend the basic premises of ST with the perceived reasons but DAT, SBT and ST to the determinants of property crime.

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