Preparing Green Entrepreneurs for Sustainable Development*

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Abstract: Incorporating social and environmental concerns into economic actions are dealing with responsibility of sustainable development for business and meet the needs of future generations. This paper describes students understanding about green entrepreneur dimensions in terms of clean-growth, socially-aware, and environmentally-save businesses. It examines appropriateness of policy instrument models in terms of incentive, punishment, and no such policy needed models preferred and seeks its differences. Integrating the dimensions and policy instruments are directed to achieving imminent sustainable development. This survey has analyzed data collected from 265 students taking entrepreneurship course. Indicators developed to measure green entrepreneur dimensions and policy instrument models using Likert scales. Percentage, paired-samples t-test, and multivariate general linear model analysis were employed to answer research questions. This research revealed the importance of green entrepreneur dimensions for running green business, and the need of either incentive or punishment models as policy instruments for sustainable development. Considering role of Higher Education Institutions (HEIs) that have to take action in implementing education for sustainable development, consequently, delivering of entrepreneurship courses in HEIs should integrate triple bottom line as critical context of entrepreneurship education and its responsibility in creating green entrepreneurs.

Keywords: green entrepreneur, sustainable development, entrepreneurship education, higher education institution

Abstrak: *Perhatian mengenai dimensi sosial dan lingkungan dalam aktivitas ekonomi merupakan tanggung jawab terkait dengan pembangunan berkelanjutan untuk keberlangsungan bisnis dan memenuhi harapan generasi mendatang. Artikel ini memaparkan mengenai pemahaman mahasiswa peserta perkuliahan* entrepreneurship *tentang dimensi-dimensi* green entrepreneur *yaitu* clean-growth, socially-aware, *dan* environmentally-save businesses *sebagai* triple bottom line, *dan menguji kesesuaian model instrumen kebijakan dengan dimensi-dimensi tersebut. Data penelitian survey ini diperoleh dari mahasiswa peserta mata kuliah* entrepreneurship *dan dianalisis dengan mempergunakan persentase, uji-t sampel berpasangan, dan multivariate general linear model. Mempertimbangkan pentingnya peran institusi perguruan tinggi dalam pengimplementasian pendidikan untuk pembangunan berkelanjutan, maka pembelajaran* entrepreneurship *perlu mengintegrasikan* triple bottom line *sebagai konteks kritis dari pendidikan* entrepreneurship *dan tanggung jawab dalam penciptaan* green entrepreneurs.

Kata-kata kunci: green entrepreneur, *pembangunan berkelanjutan, pendidikan* entrepreneurship, *institusi perguruan tinggi*

There has been environmental shifting around the world within two recent decades referring to Rio Declaration on Environment and Development Conference (1992). The need of trends changing should consider "green" (Croston, 2009). Problems include demo-

* The earlier version of this paper was presented at: (1) the 12th International Australian Campuses towards Sustainability Conference Brisbane, Australia, 26–28 September 2012, and (2) Professor Speech (Pidato Pengukuhan Guru Besar) of Universitas Negeri Malang entitle "Penyiapan Green Entrepreneurs untuk Pembangunan Berkelanjutan", 10 October 2012, both are unpublished.

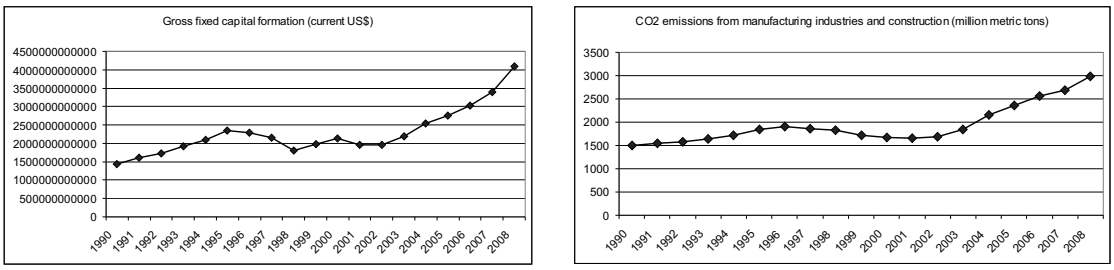
graphic change, urbanization, climate change, and globalization. It is predicted that there will be 9 billion people live by 2050, more than half of people have already lived in cities since 2007 and accordingly cities have contributed 80% of CO_2 emissions, extreme weather changing in terms of warming tensions and ecological damages, critical impact of global trades economically, socially, and environmentally (Loscher, 2010).

There are similar pattern of trends between GDP expenditures in fixed capital formation and CO_2 emissions in East Asia & Pacific Region (http://databank.worldbank.org/ddp/home.do) as showed in figure 1. Gross fixed capital formation is directed for long-term investment such as establishing new manufactures and industries intended to create more revenues. Higher GDP can be generated by expenditures to achieve value added from investments. During period of 1990-2008 in this Region at average level manufactures sectors have contributed 35% value added to GDP and 24% to GDP from industry sectors. As externalities, the CO_2 emissions produced in 2008 was twice compared to 1990. Increasing expenditures in those sectors will rise up of CO_2 emissions. If amount of emissions continues to rise, it will become a serious problem in endangering life system on earth.

GDP is a measure of society welfare. Creating higher GDP through heavy capital-intensive industries provokes possible massive pollution and others environmental damages. There is a relationship between GDP and CO_2 emissions level (Lane, 2011). Escalating of emissions will affect climate in negative way and in turn it will endangering human life and ecosystem (Sathiendrakumar, 2003). Environmental pollution in terms of CO_2 emissions can only be minimized by either reducing economic growth or creating green economic activities. Since improving welfare is through productive sectors in which the growth of economic will stimulate higher GDP achieved, so activities taken for granted are sectors that environmentally save.

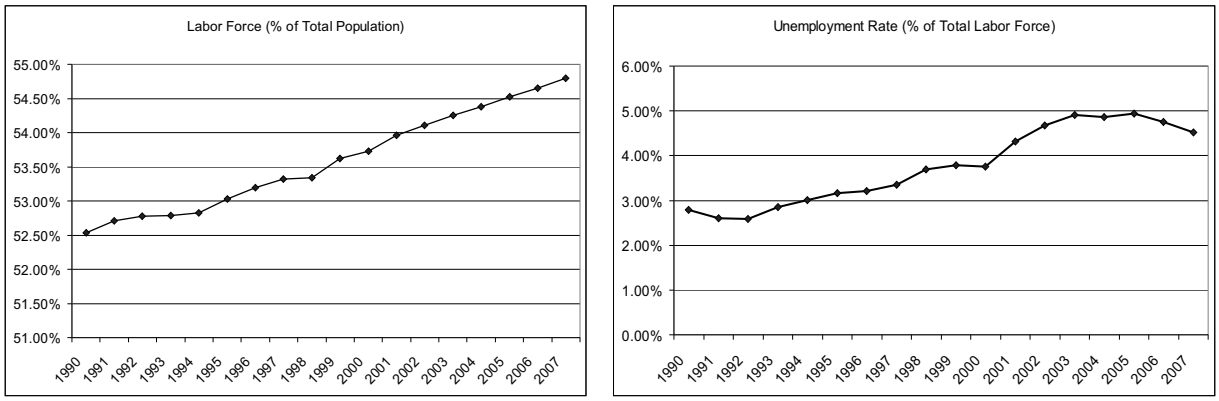
Another problem related to economic and social is unemployment levels. In the East Asia & Pacific Region (http://databank.worldbank.org/ddp/home.do), there is increasing number of labor forces, from 52% in 1990 up to 54% in 2007, and level of unemployment rate is about 2.78% in 1990 and getting higher up to 4.52% in 2007 as showed in figure 2. This means that growth of labor force is greater than employment opportunity available in economy, and consequently there will be problem of unemployment.

Possible impacts of capital intensive used in development are related to environmental



(a) Capital Formation (b) CO_2 Emissions

Figure 1 Coexisting evidence between expenditures in fixed capital formation and CO_2 emission



(a) Labor Force (b) Unemployment Rate

Figure 2 Labor Force and Unemployment Rate

and ecosystem depletion, societal and unemployment including improving quality of life problems. Governments have responsibility to improve society welfare and provide solutions for employment opportunities, and consequently it needs value added through economic activities. Referring to Kirby (2004), Gurol and Atsan (2006), and Packham et al. (2010), entrepreneurial as form of economic activities enable coping with unemployment problems through creating new job opportunities. At national level, growth of new ventures is seen as a way to solve unemployment problem for a wide-range areas. Entrepreneurship is solution for achieving economic growth that enables getting higher prosperity.

Sustainable development incorporates issues of social, environmental, and economic problems effectively. Integrating all those issues into economic actions taken by entrepreneurs is related to responsibility for the development including the sustainability of business. Successful sustainable entrepreneurs meet triple bottom-line. They do not only creating profits, but also have responsibility simultaneously for accomplishing environmental and social intentions. Concerning socially responsible and environmentally committed, entrepreneurs can provide programs, contribute ideas and expenditures to address environmental and social problems. They are directed by integrated value-oriented driven in the effort of making sustainable business growth (Choi and Gray, 2008; Marshall and Harry, 2005). Implementation of such development initiatives run concurrently with the effort of achieving economic growth, by which enable to guarantee environment protection effectively and poverty reduction (Anton, 2012).

Since it is seen as an economic opportunity, be concerned with social and environmental issues affect business performance and sustainability. There will be economic value obtained by entrepreneurs that build public image about to what extent business activities address social and environmental problems. Participation in community development and environmental conservation will create performance advantage. Several firms have used it as branding strategy by addressing whole concern about the problems to build company images through eco-friendly, eco-design, and terms alike. Implementing the strategy, those firms have obtained its competitive ad-

vantages, and of course, it will ensure business sustainability considerably (Bowers, 2010; Dutta et al., 2010; Pastakia, 1998).

In 21st century denoted by global pressures and almost no trade barriers among nations have contributed to uncertainty problems for government, business institutions, and individuals (Heinonen & Poikkijoki, 2006). There will be more complexity faced, competition, and many variables that cannot be controlled. Emphasizing the importance to add in measurement standards about quality of life and ecology are beneficial to look at economic development success. Entrepreneurs are often seen as agent of development, including their concern on social and ecological aspects. Creating small and medium enterprises tend to increase, and it is recognized as key sector for stimulating business activities in economy. This sector contributes opportunities for employment and encourages innovation for economic development (Klapper, 2004; Gliedt & Parker, 2007). From policy makers' point of view, model of economic development in terms of creating prosperity for society should be approached through multiple track of development model. Within this model, business activities integrate three considerations that contribute to (1) eradicating poverty and improving social quality of life, (2) conserving environment, and (3) economic growth. Consequently, economic activities need entrepreneurs who incorporate sustainable development issues through creating new ways of doing business (Dixon & Clifford, 2007; Salim, 2012).

Increasing number of entrepreneurs is needed to accelerate society welfare through creating employment opportunities in productive sectors. Higher education institutions (HEIs) have strategic roles in providing appropriate kinds of educational fields to students, and one of those is entrepreneurship. Rising problems in social and environmental areas as the impact of economic development should be addressed, and therefore there is a need to change mode of actions chosen into sustainable one. HEIs are drivers of development for sustainable world emphasizing on exchanging knowledge, innovation, knowledge transfer, and collaborative programs that promoting green growth (Blewitt, 2010). A lot of creativity is needed to address sustainable development. It is characterized by ongoing process of invention and looking for new opportunities that no impact on wearing out natural resources. Furthermore, HEIs also have challenge to find out solutions for a sustainable future (Koch, 2005).

There are increasing numbers of HEIs that provide entrepreneurship education for students. This course provides opportunity for individual development considering taking private business as career chosen. Entrepreneurship education cannot be taught separately merely as knowledge, and in doing so, educators have to connect it to real problems to learn. So, what is learnt in class and real business problems is considered as vehicle to improve quality and relevancy of entrepreneurship education (Richardson & Hynes, 2008). Moreover, evidence from empirical research showed that such education causes positive impact on outcomes related to career indicated by much better quality of entrepreneurs entering economy. Entrepreneurs with higher level of education have both constant effort to looking for new ways and ethical considerations in doing business (Matley, 2008; Taatila, 2010).

There is consciousness among individuals that small and medium businesses can

create employment opportunity through individual responsibility to take action as entrepreneurs. HEIs have roles in developing well prepared young entrepreneurs through entrepreneurship courses offered to students. Likewise, government is interested in promoting entrepreneurial culture for higher education students in which in line with rising private roles in economy. Educational system is challenged to bridge through innovative approaches in delivering entrepreneurship education. Entrepreneurship is seen as means to achieve competitiveness enhancement and prosperity. The main step is to develop entrepreneurship education curriculum for expected learning outcomes and experiences such as skills, values, ethics, and entrepreneurial attitudes development. Curriculum development is seen as a process to strengthen innovative capacities for HEIs. Considerably, HEIs have to promote entrepreneurship education in relation to prepare young entrepreneurs to address sustainability problems (Kirby, 2004; Hamidi et al., 2008; Roffe, 2010).

Integrating suggested dimensions of green entrepreneur as mentioned in previous studies (Dixon & Clifford, 2007; Salim, 2012), research model incorporates clean-growth, socially-aware, and environmentally-save business dimensions. Policy instrument is included as an external variable that control to what extend the degree of entrepreneur run green business (Sterner, 2012). From public stand point, such policy is needed. Sustainability is seen as economic opportunity and business value. Putting it comprehensively, conducting business in clean-growth way, taking action of social responsibility and its circumstances, and conserving environment from its degradation, entrepreneurs will obtain competitive advantage for market acceptance of products labeled green as consequence of their contribution for sustainable development for future and next generation (Bowers, 2010; Dutta et al., 2010; Pastakia, 1998).

This research examines which of three models of policy instruments preferred for controlling green business. These are incentive, punishment, and no such policy needed models. The main question to search is whether any differences among models and to what extent its effects on green entrepreneur dimensions. Integration of dimensions and policy instruments are directed to achieve sustainable development. Research model is figured out as follows.

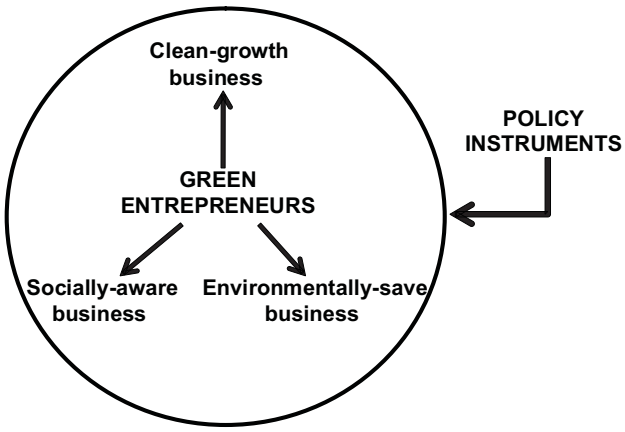


Figure 3 Research Model

Based on theoretical foundation explored, research questions are pointed out as follows.

- To what extent students taking entrepreneurship course figure out their understanding about green entrepreneur dimensions in terms of clean-growth, socially-aware, and environmentally-save business?
- Which of policy instrument models more relevant to green entrepreneur dimensions?
- Are there any differences among policy instrument models in terms of incentive model, punishment model, and no such policy needed model?

- To what extent the effects of policy instrument models preferred on green entrepreneur dimensions?

Incentive model is intended to motivate entrepreneurs to run business by providing incentives such as giving rewards, less tax, protections, and other means if they meet green business characteristics. On the other hand, punishment model is intended to charge entrepreneurs through higher tax, sanction, and other means if they do not meet green criteria. Intention of incentive and punishment models is the same, in which entrepreneurs are expected to run green business. So, hypothesis can be pointed out as follow.

H_1 There is no difference between incentive and punishment policy instrument models.

Moreover, it will be compared between previous models with no such policy instrument model implemented to control whether entrepreneurs meet green criteria or not. Since that there is no implication either in the form of rewards or punishment for entrepreneurs when they run business, so they will do as they want without considering any other aspects whether implicate to positive or negative impacts to their societal and environment circumstances. Considerably, there will be objection for these entrepreneurs. So, hypothesis can be written down as follow.

H_2 There is a difference between incentive and no such policy instrument models.

H_3 There is a difference between punishment and no such policy instrument models.

Based on the results of hypothesis testing (H_1, H_2, and H_3), it is obtained appropriate policy instrument models preferred to influence green business dimensions. Accordingly, hypothesis can be written as follow.

H_4 There are significant effects of policy instrument models preferred on clean-growth, socially-aware, and environmentally-save business dimensions.

METHOD

Survey was employed as research design to collect data from students taking entrepreneurship course in academic year 2011/2012 in Faculty of Economics, State University of Malang (UM). This research is intended to know to what extent students taking the course aware about the issue of green entrepreneur's dimensions and the effect of policy instruments on the dimensions. The number of 270 students taken randomly from 386 students from nine different classes had participated in this study, and due to incomplete information of questionnaires filled, final number of respondents are 265 students (98% rate of response) to be used in analysis for generalization.

Dimensions and indicators of green entrepreneur developed and used in this research are based on multiple integrated "green" facets for running business. These dimensions should be considered starting from input, process, and output, and even outcomes of business activities. Dimensions unity is important for sustainability, not only for continuity of business itself but also awareness of maintaining environment from eradication and attention to social circumstances. Policy instruments variable include incentive, punishment, and no such policy needed models.

Questionnaire items developed from indicators use five-point Likert scale options, starting from strongly disagree up to strongly agree. Respondents were asked to express their degree of agreement or disagreement on each item options. Questionnaire consists of two parts. The first part is concerning with green entrepreneur dimensions composed of 27 items with nine items for each dimensions. Example of item is "Entrepreneurs have to promote clean-impact (non-destructive) strategy both socially and ecologically for business growth". The second part is concerning with policy instrument models composed of 18 items with six items for each model. Example of item is "Incentive through less taxes for environmentally and socially care entrepreneurs".

Results of instrument reliability tests exhibit good reliability, since all Alpha Cronbach coefficients above 0.70 as showed in Table 1 and 2.

Moreover, Confirmatory Factor Analysis (CFA) is employed to analyze green entrepreneur construct unity by using LISREL 8.30 application software. This CFA provides information about loading factor coefficients for each dimension. The aim is to know whether all those three dimensions enable to form green entrepreneur construct. Construct reliability is analyzed by using composite reliability (r_c) formula (Bagozzi & Yi, 1988). Result of testing showed that three dimensions in terms of clean-growth, socially-aware, and environmentally-save businesses have completely formed construct of Green Entrepre-

Table 1 Reliability for Green Entrepreneur Dimensions

Dimensions	n	Mean	Std. Error of Mean	Std. Deviation	Alpha Cronbach
1. Clean-growth	265	4.599581	.0208497	.3394085	0.769
2. Socially-aware	265	4.245283	.0269624	.4389169	0.796
3. Environmentally-save	265	4.485535	.0250917	.4084635	0.829

Table 2 Reliability for Policy Instrument Models

Models	n	Mean	Std. Error of Mean	Std. Deviation	Alpha Cronbach
1. Incentive	265	4.011321	.0396865	.6460494	0.845
2. Punishment	265	3.950943	.0437335	.7119295	0.839
3. No such policy needed	265	2.251572	.0461420	.7511374	0.887

neur. A standardized solution of construct testing is presented as follow.

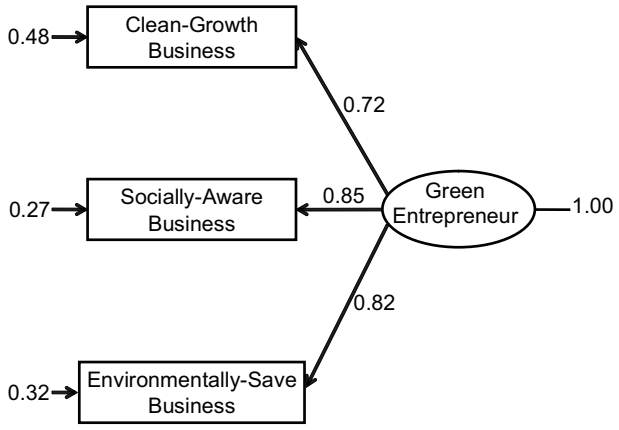


Figure 4 Green Entrepreneur Construct

CFA obtained goodness of fit statistics that consist of degrees of freedom = 0, minimum fit function chi-square = 0.0 (P = 1.00), normal theory weighted least squares chi-square = 0.00 (P = 1.00), the model is saturated, and the fit is perfect. Composite reliability coefficient of the construct is r_c=0.84 considered reliable (Bagozzi & Yi, 1988). From construct testing done, argument of triple bottom line of green entrepreneur as mentioned by Choi and Gray (2008), Marshall and Harry (2005), and Salim (2012) has been confirmed.

RESULT

Answering research questions 1, percentage analysis is implemented to find out to what extent students taking entrepreneurship course showing their agreement or disagreement about green entrepreneur dimensions. This includes clean-growth business, socially-aware business, and environmentally-save business dimensions. Research finding is described descriptively as follow (Table 3).

Based on above table, graphically it can be figured out as follow (Figure 5).

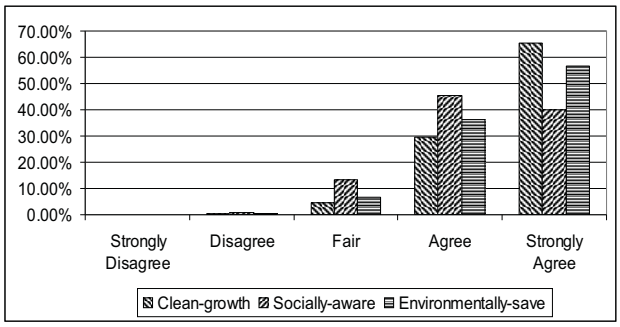


Figure 5 Proportion Frequency of Green Entrepreneurs Dimensions

Table 3 Proportion of Green Entrepreneurs Dimensions

Dimensions	Options				
	Strongly Disagree	Disagree	Fair	Agree	Strongly Agree
Clean-growth	0.00%	0.46%	4.44%	29.77%	65.32%
Socially-aware	0.04%	1.01%	13.46%	45.37%	40.13%
Environmentally-save	0.00%	0.55%	6.83%	36.14%	56.48%

Most of respondents agree and strongly agree that entrepreneurs have to meet green criteria. They have pointed out the importance of considering conducting green business and emphasized that entrepreneurs have to address economic, social, and environmental issues.

Answering research questions 2, percentage analysis is implemented to find out respondents expressions about relevancy of policy instrument models to green entrepreneur dimensions. They were asked to express their agreement or disagreement regarding statements in questionnaire. For the first model of policy instrument asked to them is an incentive model. Through the implementation of incentive model means that entrepreneurs will be given rewards, less taxes, or protections if they concern with clean-growth, social-awareness, and environmental aspects in doing business. Then, for the second asked to them is a punishment model as an opposite compared to previous one. Within this model, entrepreneurs will be punished if they do not have awareness about green business. In other words, they will be charged through higher taxes and other means if they do not have contribution for maintaining business growth in a clean way, contributing to community development, and conserving environment. All of those are intended for improving quality of life and make it possible to keep business sustainability. Lastly, for the third asked to respondents is neither incentive nor punishment models needed to control business. It means that there are no regulations needed to inspect whether entrepreneurs meet green business criteria or not. Research finding is described descriptively as follow (Table 4).

Based on above table, graphically it can be figured out as follow (Figure 6).

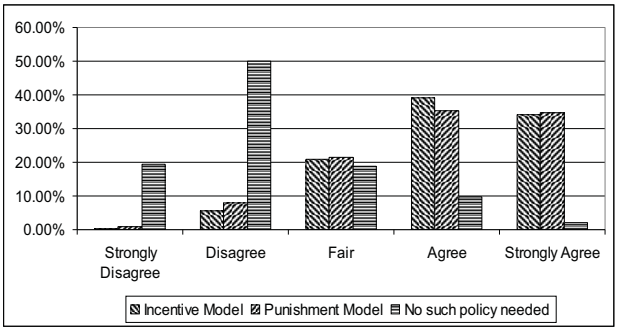


Figure 6 Proportion Frequency of Instrument Policy Models

Most of respondents pointed out that they disagree and strongly disagree if there is

Table 4 Proportion of Instrument Policy Models

Models	Options				
	Strongly Disagree	Disagree	Fair	Agree	Strongly Agree
Incentive	0.38%	5.53%	20.82%	39.12%	34.15%
Punishment	0.75%	7.86%	21.51%	35.28%	34.59%
No such policy needed	19.37%	50.06%	18.68%	9.81%	2.08%

Table 5 Summary of Policy Instruments Differences Analysis

Paired Differences							
Pairs	**Models**	**Mean**	**Std. Deviation**	**Std. Error Mean**	**t**	**df**	**Sig. (2-tailed)**
1.	Incentive & Punishment	.0603774	.7258473	.0445884	1.354	264	.177
2.	Incentive & No Such Policy	1.7597484	1.1815137	.0725798	24.246	264	.000
3.	Punishment & No Such Policy	1.6993711	1.2294522	.0755246	22.501	264	.000

no policy instrument. In other words, the regulation is needed either in the forms of incentive or punishment instruments to control business to meet criteria. Respondents preferred either incentive or punishment models as policy instruments compared to no such policy instrument.

Answering research question 3, a paired-samples t-test analysis is used to find out differences among policy instrument models. This analysis is used to examine three hypothesis proposed in this research. Test is done to know whether any differences among policy instrument models. Results of analysis are presented as follows (Table 5).

Differences among policy instrument models are figured out in following table (Table 6).

Results of testing revealed that there are two policy instrument models preferred to expect entrepreneurs running green business in terms of incentive and punishment policy instrument models. This conclusion is relevant with respondents' agreement or disagreement about instrument policy instruments needed. Most of them do not agree if there is no such policy instrument.

Finally, answering research question 4, effect of models preferred on green entrepreneur dimensions is done through multivariate general linear model executed by using SPSS application software version 16.0. This analysis enables to include multiple dependent-independent variables within once simultaneous execution. Parameter estimates are described as follow (Table 7).

Table 6 Test of Differences among Policy Instrument Models

	Hypothesis (null)	**Results**
	There is no difference between:	
H_1	Incentive and punishment policy models	Not Rejected (t=1.354, Sig. 0.177)
H_2	Incentive and no such policy models	Rejected (t=24.246, Sig. 0.000)
H_3	Punishment and no such policy models	Rejected (t=22.501, Sig. 0.000)

Table 7 Parameter Estimates

Dependent Variable	Parameter	B	Std. Error	t	Sig.	Partial Eta Squared	Observed Power[a]
Clean-Growth	Intercept	3.496	.130	26.795	.000	.733	1.000
	Incentive	.139	.032	4.366	.000	.068	.992
	Punishment	.139	.029	4.804	.000	.081	.998
Socially-Aware	Intercept	2.557	.159	16.043	.000	.496	1.000
	Incentive	.242	.039	6.224	.000	.129	1.000
	Punishment	.182	.035	5.171	.000	.093	.999
Environmentally-Save	Intercept	3.052	.151	20.168	.000	.608	1.000
	Incentive	.130	.037	3.518	.001	.045	.939
	Punishment	.231	.033	6.913	.000	.154	1.000

a. Computed using alpha = .05

Results of hypothesis testing are described as follow (Table 8).

Relationship among variables is figured out as follow (Figure 7).

Table 8 Test of Effects of Policy Instrument Models Preferred on Green Entrepreneur Dimensions

	Hypothesis (null)	Results
	There is no significant effect of:	
H_{4a}	Incentive model on clean-growth business	Rejected (t=4.366, Sig. 0.000)
H_{4b}	Incentive model on socially-aware business	Rejected (t=6.224, Sig. 0.000)
H_{4c}	Incentive model on environmentally-save business.	Rejected (t=3.518, Sig. 0.001)
H_{4d}	Punishment model on clean-growth business.	Rejected (t=4.804, Sig. 0.000)
H_{4e}	Punishment model on socially-aware business.	Rejected (t=5.171, Sig. 0.000)
H_{4f}	Punishment model on environmentally-save business	Rejected (t=6.913, Sig. 0.000)

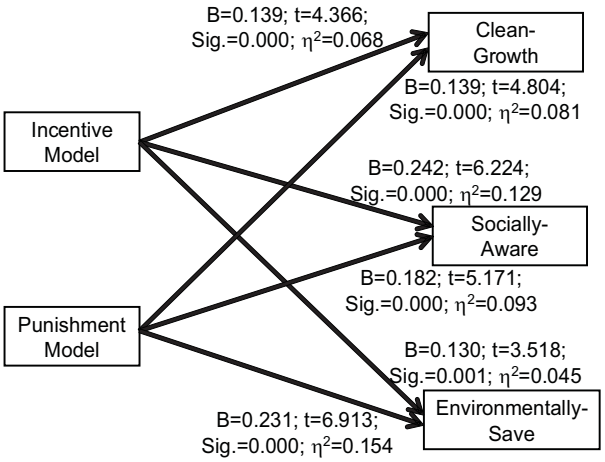


Figure 7 Effects of Incentive and Punishment Models on Green Entrepreneur Dimensions

There are two relationship patterns among variables. Firstly, the effect of incentive model on socially-aware dimension is higher than punishment model indicated by 12.9% partial eta squared coefficient of determination. Secondly, the effects of punishment model on clean-growth and on environmentally-save dimensions are higher than incentive model indicated by 8.1% and 15.4% partial eta squared coefficients of determination.

DISCUSSION

Research findings revealed that in entrepreneurship studies need to look at environment and social awareness dimensions, besides taking business growth as economic benefits. Findings are supported by the work of Hoa (2006) pointed out that sustainable development is key success factor to be achieved for prosperity and better life for long-term period. Conducting investment effectively and maintaining stable growth rate enable to support sustainable economic development. Reducing poverty, promoting social equality and justice through community development play important role for sustainable social development. Conserving and protecting environment and natural resources from exploitation is necessary for sustainable environmental development. Business performance measurement includes whole aspects in terms of financial indicators achievement, its responsibility accomplishment for social and community development, environmental conservation, and its circumstances attainment. Through implementation of eco-branding strategy, socially responsive, and green-labeled products, entrepreneurs are able to take competitive advantage position for their business, and accordingly it is beneficial for its sustainability (Dutta et al., 2010; Bowers, 2010).

Findings are relevant with the issue of Rio+20 that there is inappropriateness of regulations available to provide effective protection on global environment (Anton, 2012; Goetz, 2010). The availability of regulations issued enable enforcing business activities standard operation that consider reaching whole issues in terms of achieving clean economic growth, reducing poverty and taking action for community development, and conserving environment altogether. Regulations, both incentive and punishment models, are intended to ensure implementation of sustainable development, not merely filling current needs but it is also meeting the needs for next generations. Findings are relevant to and also related with public choice theory and social justice in nature by inducing ethics elements within business activities. The relevance to include business ethics in economic analysis and decision making system are related to conception of universality order, including the conception of physical environment. En-

vironment is treated as public economic portfolios (Choudhury, 1995; Schroeder, 2009).

Considering problems of economic activities consequences on social, environment, and economic development, HEIs have to integrate sustainability issues into curriculum, teaching and learning mainly for entrepreneurship education. Educational process has to emphasize critical thinking and problem solving by using holistic approach intended to systemic and future-oriented thinking. HEIs have to be consistent with a movement of education for sustainable development (Kagawa, 2007; Lawale & Bory-Adams, 2010; Manteaw, 2010; Naeem & Neal, 2012; Seikkula-Leino *et al*., 2010). The need for entrepreneurs who concern with dimensions of clean-growth, socially-aware, and environmentally-save business as revealed in this research is consistent with the work of Naeem and Neal (2012) that HEIs have to support sustainable business models to be introduced to students. They mentioned that main constraint is a willingness among educators to include sustainability problems into teaching-learning materials.

HEIs have to keep a movement of education for sustainable development continually. Education for sustainable development is a learning process about how to make decision mainly related to business activities that considering long-term impact from economic, ecology, and social justice point of view (UNESCO, 2005). Entrepreneurship education is the most closed for students and preparing them to be young entrepreneurs. Kagawa (2007) pointed out that HEIs is not merely facilitate students with cognitive and skills development for operating business, but also coping with affective domain as ingredients. It means that entrepreneurship education needs to address economic, social, and environment problems. Pedagogy will assist students to envisioning and taking preferred action expected to bridge between theory and practice through creating conducive learning environment. It should be designed comprehensively and delivered properly that in line with mission of education for sustainable development.

Entrepreneurship education is work-related learning and innovative entrepreneurial skills that integrates knowledge, skills, experiences, and prepare new entrants to run business (Cheng et al., 2009; Mwasalwiba, 2010). Entrepreneurial development program is done by connecting students as new entrepreneurs with mentors through internship programs. Main outcomes obtained of this learning are both cognitive and affective, showed by changing of attitudes and motivation for improvement. It is possible to provide students with more than a mentor to assist them to manage more complex situation learnt. Students taking internship programs need to have support from mentors to induce skills in managing small and medium business successfully (Terjesen and Sullivan, 2011).

CONCLUSION

This research has revealed that clean growth, socially-aware, and environmentally-save business are dimensions considered to accomplish sustainable development. Accomplishment of the dimensions within business activities are not only to fulfill current needs but also to comply with the needs of future generations. Existence of policy instruments issued by government is expected to accom-

plish achievement of green business. Instruments preferred are incentive and punishment models. The first is more appropriate for social dimension, while the second is more appropriate for a clean-growth and environment dimensions. Accomplishing dimensions controlled by policy instruments are intended to establish business sustainability and sustainable development.

From HEIs perspectives, considering importance of green business for sustainability, integrating policy instruments preferred for controlling dimensions of green business are significant issues to be addressed in entrepreneurship course. HEIs have mission and responsibility to promote education for sustainable development. In relation to the implementation of entrepreneurship education, issues of economic, community, and environmental problems, and regulations as policy instruments related to business operations are addressed and incorporated in learning process altogether with entrepreneurial skills development. HEIs have key roles in designing entrepreneurship education curriculum, teaching and learning standards that meet with sustainable development requirements. Consequently, responding to the movement of sustainability development and its future implications, entrepreneurship education is challenged to generate green entrepreneurs to run green business.

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