EXPLORING YOUNG AND GREEN ENTREPRENEURSHIP IN INDONESIA: AN INTRODUCTION

Janti Gunawan
School of Business Management, Institut Teknologi Sepuluh Nopember, Indonesia
Barbara Hardy Institute, University of South Australia, Australia

Kym Fraser
Barbara Hardy Institute, University of South Australia, Australia
Faculty of Economics and Business, University of Brawijaya, Indonesia

Abstract
This study was undertaken to better understand how to promote young and green entrepreneurship in Indonesia, where institutional support is limited. A large proportion of the Indonesian population is young but business start-ups are low and youth unemployment is high. Gaps in institutional development, economic growth, social and environmental wellbeing are all massive challenges for the country, which also faces a huge geographical spread of its population. Entrepreneurship is now being promoted by the government as a policy direction to help reduce some of the economic and social inequities which exist. Global organisations, such as ILO, OECD and UN, are also actively encouraging young entrepreneurship and eco-business as sustainable options for many social, economic and environmental challenges. This study proposes a relationship model between entrepreneurial characteristics, institutional environment and young entrepreneurs’ innovativeness. While the response rate to the web-based survey was too low to test the proposed hypotheses, the paper does provide a meaningful introduction to this important topic, along with a comprehensive summary of constructs and measures of variables to encourage further research and to assist future researchers.

1. INTRODUCTION

The younger generation counts for twenty five percent of the world population (PRB, 2013). The age range for this group, commonly referred to as 'young adults', is 15-24 and they are viewed as the future engine of economic growth. However, the participation rate of these young people in the labour market is relatively low, ranging from 41% for females to 56% for males. In developing countries the participation rate is even lower at around 30% (ILO, 2012). In an effort to increase employment focus and opportunities the United Nations has declared that youth entrepreneurship is
one of its social economic development strategies (ILO, 2012), but further operationalised research is needed to improve our understanding of how entrepreneurship can act as an alternative employment path for these young adults (Tolbert et al., 2011).

Besides major employment challenges the world also faces increasing environmental issues, such as climate change, water scarcity, energy requirements and decreasing resources, due to population growth and increasing consumption. While these challenges may be seen in a negative light by many, for entrepreneurs they present opportunities (Bruton et al., 2010). The ideal outcome to these challenges is the development of green or eco-friendly entrepreneurs. These are individuals who offer environmental friendly products or services with profit-maximising intent, while motivated to operate under ethical and social values (Walley & Taylor, 2002).

As the challenges mount global enterprises are facing increasing pressure to meet changing social, environmental and economic standards (Plieth et al., 2012). Theoretically, businesses that strive to be environmentally friendly or socially advancing should grow and prosper but empirical studies show that translating these concepts into reality is difficult. A longitudinal study of green entrepreneurs found that green business may not be able to achieve lasting success (Holt, 2011). Entrepreneur success depends on a number of issues, such as the entrepreneurial spirit of the business owner, the innovation of the product/service, and the market characteristics (Perri & Chu, 2012). Holt (2011) argues further research is needed to investigate both internal and external challenges for green entrepreneurs so that issues can be better understood and solutions found. There is, however, some links between entrepreneurship and the environment, in which it is suggested that future studies should be undertaken to investigate the contribution of entrepreneurship to sustainable development (Hall et al., 2010). The OECD (2011) has identified that further empirical research is needed on both green entrepreneurship and young entrepreneurs.

This paper attempts to explore the relationship between entrepreneur characters, their assessment of the environmental situation, and innovative behaviour. Three main literature frameworks are used: entrepreneurship, institutional and innovation theory. The theory on entrepreneurship is used to understand individual characters of entrepreneurs, while institutional theory is used to demonstrate how a given institution, with its associated regulations, norms and values, may impact the way a business grows. Firms may need to increase focus on how to balance social and business goals while securing its commercial commitments over time (Smith et al., 2013). According to Bruton et al., (2010), institutional theory makes a major contribution to understanding entrepreneurial behaviour, but there are limited studies that link institutions with entrepreneurship (Tolbert et al., 2011; Sine & David, 2003). Lastly, innovation theory is used to demonstrate various types of innovations generated by young green entrepreneurs. By understanding individual characters, their view of the environment and the way they manage their business may provide us with a better understanding on how to promote and support young green entrepreneurs of the future.

2. LITERATURE REVIEW

Entrepreneurs have been given a number of definitions by various authors due to their research focus, such as the research aims, motivation, and stage of enterprise development (Misra & Kumar, 2009; Nasution et al., 2011; Rusu et al., 2012). There are various reason why entrepreneurs exist including economic freedom, personal development, family requirements, and environmental pressures (Langevag et al., 2012; Perri & Chu, 2012), while age and the size of firm are important factors (Coombs et al., 2009). Coombs et al. (2009) argue that many studies tended to focus on the firm’s age rather than individualism of entrepreneurs. This paper attempts to place the focus on ‘young’ and ‘green’ entrepreneurship.

The term ‘young adult’ is defined differently across institutions and countries. The International Labour Organisation (ILO, 2012) defines young adults as people aged between 15-24 years, while the European Commission defines young as people aged between 15-29 years (Green, 2013). At a country level, variances also exist. For example, in Indonesia young adult is defined as people aged
between 15-30 years (Gunawan & Fraser, 2013). Due to the fact that this paper is discussing young entrepreneurs in Indonesia then the definition of young adults for Indonesia will be followed.

Green entrepreneurs is defined as “... an entrepreneurs who operate in the green sectors which include someone who seek to transform a sector towards sustainability such as through green innovation (green product design, green processes, and/or green services) that either reduce resources or improve efficiency toward zero waste...” (OECD, 2011). These individuals tend to have an environmental focused mindset, which may involve differing characteristics in finding ideas, managing operations, solving problems, and identifying opportunities. Thus, there is a linkage between individual characteristics, the way they operate the business and the environment under consideration. Figure 1 illustrates the framework model being used in this study.

![Figure 1: Research framework for study](image_url)

Green entrepreneurs exist due to various reasons ranging from individual to environmental pressure, such as the intention to solve environment issues, improve the efficiency of processes, and comply with government regulations (Schick et al., 2002). Importantly, entrepreneurship studies indicate that it is entrepreneurial characters that help new entrepreneurs to create wealth through innovation and exploitation of opportunities (Nasution et al., 2011). The characteristics of individuals is taking ownership and being proactive in making the business a success. According to Caggese (2012) an entrepreneur’s sense of responsibility can be observed by the level of innovation they exhibit.

Therefore, using the outcomes from previous entrepreneur studies as a guide the following two hypotheses are proposed:

H1a: Generally, the higher the level of entrepreneurship of young entrepreneurs, the higher the innovation level of their business.

H1b: Specifically, the higher the level of green entrepreneurship of young entrepreneurs, the higher the green innovation level of their business.

Exploring the links between firms and entrepreneurs, Scott (1987) explains that firms operate within a regulatory, normative and cognitive environments, and they analyse the situation at a micro, meso and macro level, sometimes unconsciously (Tracey et al., 2011). At the micro level, entrepreneurs consider their individual experience and background in guiding their business decisions and actions. This includes the way they frame problems and think counterfactually. At the meso level, entrepreneurs try to find solution for their problems, re-design it, while ensuring that their solution is logical. At the macro level, entrepreneurs try to confirm and legitimise their solution.

The institutional environment provides the boundaries for the firm, either legally or virtually, to operate and conduct its business (Wicks, 2001). Dickson and Weaver (2008) argue that institutional setting shapes individual entrepreneurs thinking and how they manage their business.

At the operational level, entrepreneurs are market makers who deal with suppliers and customers to build relationships and identify new opportunities (Casson, 2005). The boundaries of the firm define how entrepreneurs determine the scope of operations, such as their search for suppliers and customers to support their operations. As the boundaries of the firm are defined by the entrepreneurs...
mind, the environment where the firm operates impacts the scope of a firm’s operations. It can enhance or limit the firm’s operations therefore the environment mediates the relationship between the entrepreneur and its operations.

At the strategic level, Tracey et al. (2011) claim that entrepreneurs find legitimacy to exist through regulation and/or government direction. In a developing country where the institutional environment changes rapidly, Sine and David (2003) found that entrepreneurs try to maintain their existence by being adaptive to their continuous changing environment. Such entrepreneurs consider the inputs from the environment to direct their business and operations. Institutional believers accept that the environment may strengthen or weaken the strategic position of the business.

Therefore, the following two hypotheses are proposed:

H2a: In general, the more entrepreneurial the environment, the more positive the relationship between young entrepreneurs and their level of innovation.

H2b: Specifically, the more green entrepreneurial the environment, the more positive the relationship between young entrepreneurs and their green innovation.

A serious problem faced by entrepreneurs is access to finance (Perri & Chu, 2012). Entrepreneurs have limited evidence to show for their capability to repay loans, and Blazenko et al. (2012) state that finance for a new start-up is more risky than for an established business. Having said that, Gujba et al. (2012) argue that financing green business is important if the promotion of the low carbon economy is to succeed. However, Lerner (2010) found that financial institutions reluctantly provide financial support for innovative firms, which may include green business. Green businesses and/or industries form part of the innovators group, where they introduce something new, but limited evidence is available in which to evaluate the feasibility of finance or a loan.

Therefore, the following two hypotheses are proposed:

H3a: In general, long established entrepreneurs have fewer problems accessing finance than newly established entrepreneurs.

H3b: Specifically, green entrepreneurs face greater problems accessing finance when compared to non-green entrepreneurs.

As the very nature of entrepreneurship is to find solutions, this characteristic may well lead green entrepreneurs to explore other channels to access finance. Perry (1989) indicates that new startups may be able to seek the support of venture capital to fund development and growth of their business. Zachary and Mishra (2013) argue that new startups do not give up on formal financial institutions when faced with challenges, and may link to informal financial institution or individuals (Menkhoff & Rungruxsirivorn, 2011).

Therefore, the following two hypotheses are proposed:

H4a: In general, young entrepreneurs are more likely to access informal financial services.

H4b: Specifically, new young green entrepreneurs will access informal financial services.

3. CASE COUNTRY AND VARIABLE CONSTRUCTS

Indonesia is selected as the case country for this study as 25% of the population are young adults but the unemployment rate for this group is five times higher than for adult unemployment (Gunawan & Fraser, 2013). While this situation may seem dire it may in fact reflect many developing countries in Asia and Africa. With respect to the issue of ‘green’, Indonesia has politically committed to reducing carbon emission by 26% (or 41 percent with external support) by 2020 (Gunawan & Fraser, 2012). This commitment was announced by the Indonesia president in a speech for the United Nations Framework Convention on Climate Change (UNFCCC) in Copenhagen in 2009, and included the establishment of several councils to operate it, such as the National Climate Change Council, the National Energy Council and the National Innovation Committee.
When considering entrepreneurship the issue becomes an Indonesian national economic development policy in 2007, via the Presidential Instruction No. 06/2007, and as a linked component of the youth development program, Law No. 40/2009 (Gunawan & Fraser, 2013). However, the implementation of Indonesia’s economy toward a greener economy has made slow progress. Part of the challenge is that Indonesia shifted their governance from a centralised to a decentralised system in 2001. With a population of around 247 million residing in more than 6,000 islands (Fraser, 2013), selecting Indonesia as a case country offers a very dynamic situation in which to explore young and green entrepreneurship.

The questionnaire survey was developed using the constructs and measures shown in Table 1. Participants were asked whether their business fell within the definition of a green business based on the classification presented by the OECD (2011). These categories are used to assess generic and specific hypotheses of this study. The web questionnaire was also designed to accommodate Indonesia’s greeting customs, and participants were offered non-financial incentives in the hope of improving response rates, as suggested by Sauermann and Roach (2013). Table 1 illustrates the dependent, independent, mediating and control variables of the study.

**Table 1: Constructs and measures of variables**

<table>
<thead>
<tr>
<th>Construct &amp; Measures</th>
<th>Reference/s</th>
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<tbody>
<tr>
<td><strong>Independent variable:</strong> Green entrepreneurial level of business owner</td>
<td>Likert scale (1 = strongly disagree; 5 = strongly agree)</td>
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<tr>
<td>Autonomy dimension</td>
<td></td>
</tr>
<tr>
<td>• I take responsibility for my work</td>
<td>(Dickson &amp; Weaver, 2008)</td>
</tr>
<tr>
<td>• I can get the job done with minimum supervision</td>
<td></td>
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<tr>
<td>• I prioritise my work</td>
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<tr>
<td>Risk taking dimension</td>
<td></td>
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<tr>
<td>• I treat uncertainty as a challenge</td>
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<tr>
<td>• My business is open to exploring unexplored territories</td>
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<tr>
<td>• I can accept that certain suggestions may fail when implemented</td>
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<tr>
<td>• My business venture emphasises opportunity for success rather than chance for failure</td>
<td>(Nasution et al., 2011)</td>
</tr>
<tr>
<td>• If a new venture fails I view it as a learning experience</td>
<td></td>
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<tr>
<td>Proactiveness dimension</td>
<td></td>
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<tr>
<td>• I constantly seek new green opportunities related to the present operations</td>
<td></td>
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<tr>
<td>• I am usually the first to introduce new green products/services in the industry</td>
<td></td>
</tr>
<tr>
<td>• I constantly seek opportunities to improve our business performance</td>
<td></td>
</tr>
<tr>
<td><strong>Mediating variable:</strong> Green entrepreneurial environment</td>
<td>Likert scale (1 = strongly disagree; 5 = strongly agree)</td>
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<tr>
<td>Regulatory dimension</td>
<td></td>
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<tr>
<td>Regulatory 1: Government institutions in your region assist individuals with starting their own green businesses</td>
<td></td>
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<tr>
<td>Regulatory 2: The government locates government contracts for new and small green businesses</td>
<td>(Manolova et al., 2008)</td>
</tr>
<tr>
<td>Regulatory 3: Local and/or national government have support schemes available for individuals who want to start a new green business</td>
<td></td>
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<tr>
<td>Regulatory 4: The government sponsors organisations that help new green businesses develop</td>
<td></td>
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<tr>
<td>Regulatory 5: If failed in a previous business, the government assists green entrepreneurs in starting again</td>
<td></td>
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<tr>
<td>Cognitive dimension</td>
<td></td>
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<tr>
<td>Cognitive 1: Individuals know how to legally protect a new green business</td>
<td></td>
</tr>
<tr>
<td>Cognitive 2: Individuals who start a new green business know how to deal with higher levels of risk</td>
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</tbody>
</table>
Cognitive 3: Individuals who start a new green business know how to manage risk
Cognitive 4: Individuals know where to find information about markets for their green products/services

Normative dimension
Normative 1: Turning new ideas into green businesses is an admired career path in your region
Normative 2: In your region, innovative and creative thinking is viewed as a route to success
Normative 3: Green entrepreneurs are admired in your region
Normative 4: People in your region tend to admire those who start their own green business

Dependent variable:
Green innovation
Likert scale (1= strongly disagree; 5 = strongly agree)

Process innovation dimension
• I constantly benchmark our operating systems to world class standards
• Work practices are constantly updated to increase productivity
• I constantly use green technology to enhance product/service quality
• My organisation invests heavily in developing new green operating systems
• I continuously train our people in emerging green industry technologies

Product innovation dimension
• My organisation has introduced many new green products/services to the market
• My organisation has introduced many modifications to the existing green products/services
• My organisation constantly seeks to find new green products/services
• My organisation has introduced more new green products/services than our competitors
• The new green products/services I introduced have caused significant changes in the industry

Administrative innovation dimension
• I constantly introduce new ways of managing our green business
• My organisation invests in updating administrative procedures
• I constantly seek new ways to improve administrative systems
• My organisation empowers employees to take initiatives
• Our competitors use our administrative systems as a benchmark

Independent variable:
Green business challenges
Likert scale (1= strongly disagree, 5 = strongly agree)

Lack of awareness for green products
Limited access to green information, knowledge and technology
Inability to follow regulatory changes
Lack of skills and qualified personnel
Limited access to finance
Inability to enter and maintain position in the market
Inability to engage in global value chain
Limited infrastructure to support company growth
High cost of using green transport/logistic methods

Independent variable:
Green business source of funding
What is the source of funding for your business?
1) Savings, 2) Parents, 3) Family, 4) Friends, 5) Informal sources, 6) Commercial banks, 7) Government grant, 8) Angel investor
4. FINDINGS

The data for this study was collected via a web-based survey, emailed to 132 young entrepreneurs and graduates of senior high school and universities in Indonesia. Web-based surveys are
increasingly being adopted as it provides a timely and cost effective way of doing empirical research (Sauermann & Roach, 2013). In Indonesia, where email and the internet is the most effective way of engaging with the country’s population, this method is considered appropriate.

Disappointingly the study received only 30 responses. Due to the low number of participants the opportunity to undertake detailed statistical analysis and testing of the hypotheses was not possible. Therefore, the following descriptive analysis of the 30 young entrepreneurs who responded is provided.

The gender makeup was split 70% male and 30% female, with the business operating, on average, 5.5 days per week and 10 hour working days, while the entrepreneur, spent on average, six hours per day at their business. Due to being young adults only 16% were married and all respondents indicated that the minimum level of education was secondary school. Completion of secondary school may seem a low qualification but it is not uncommon to find young adult street sellers in Indonesia who have never attended school at any level, due to the inability of their parents to pay the small fee to attend the local government school. In the last 10 years the Indonesian Government has corrected this situation by ensuring that all government schooling, up to 15 years of age, is free.

About one-third of respondents indicated they were building a reasonable level of business knowledge having started their business before 2010, and nearly two-thirds claim that they are the sole owner of the business. The most popular sector for entrepreneurial activity in this survey was the trade, hotel and tourism fields with 64% indicating involvement in the sector. Sixty five percent of respondents claimed to have no experience in business before the establishment of their current business. Most respondents assessed themselves to have entrepreneurial skills, such as the willingness to take responsibility and a passionate belief in their business, but did not see themselves or their business as being highly innovative.

Most respondents were of the view that there was not enough support from government, both financially and institutionally. They also questioned whether the community at large made any distinction between green innovative businesses and those perceived as ‘non-green’ or just a normal trading businesses. Another finding of note was the fact that this group of young entrepreneurs indicated no bias with regards to gender and age discrimination in promoting their business for a place of employment. This is an interesting point because the study was surveying young business adults therefore this finding dispels the view that they may favour their own gender and age group. Finally, the cost of transport was identified as a major burden to most entrepreneurs. Having discussed the findings of the survey, importantly all respondents indicated that they wanted to continue to be entrepreneurs.

5. CONCLUSION

The study set out to explore and add to our understanding of the evolving issue regarding young and green entrepreneurs in a developing country. Unfortunately the response rate to the web-based survey was too low to undertake any statistical testing of hypotheses. Follow-up calls to a few respondents who disclose their contact information, indicated that they took part in survey in the hope of learning more about entrepreneurship. However, they also indicated that some young entrepreneurs may not be confident to undertake an online survey regarding their business, and suggested that face-to-face interviews maybe a better approach.

We conclude that young entrepreneurs will face greater challenges when operating within the environment of a developing country. Lack of support in terms of institutional and financial, only add to the fact that these entrepreneurs are already young and in-experienced in business. Moreover, green entrepreneurs face the added challenge of there being a lack of awareness of green products, processes and services in the society, especially developing societies. The indications from this study was that starting up a business in the service sector was easier than in manufacturing, due in part to
the need for a greater understanding of process and production methods, along with the cost and reliability of transport.

Finally, while we faced a setback due to the small sample size, the study does offer some positive outcomes. Firstly, the paper provides a meaningful introduction to an important research topic, and secondly, a comprehensive summary of variable constructs and measures is tabled in the hope it will encourage further research and assist future researchers.

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