

Can Environmental Sustainability Orientation (ESO) Be Related to Entrepreneurial Intentions among Individuals? A Study of Undergraduate Students of the Business Schools in Khulna City.

Farzana Akther¹, Salahuddin Yousuf², Sarif Mohammad Khan³

Abstract

Purpose: Can entrepreneurial intention be enhanced within individuals making them more sustainability oriented? Keeping this question at the forefront, this study aims to find out the relationship between environmental sustainability orientation (ESO) and entrepreneurial intention.

Methodology: Sustainability orientation had been described as the summation of an individual's appreciation of environmental sustainability, awareness of the environmental sustainability issues and actions for environmental sustainability. Quota sampling was applied to survey 90 undergraduate students from three different groups namely science, humanities and commerce. Test field was Khulna city, Bangladesh.

Findings: Awareness of the environmental sustainability was found as the most influential factor. Actions for environmental sustainability was found negatively related with entrepreneurial intentions though it was very weak.

Keywords: Environment, Sustainability, Orientation, Entrepreneurial Intentions.

Introduction

Entrepreneurship development can be marked as a crucial factor for any country's long-term progress. So, the more interested the young population of a country will be to be entrepreneurs, the higher the country's progress will be. Countries will be interested in growing entrepreneurial intentions among the young generations. And then the world is also very concern about the environmental pressure for the rapid industrial growth. Over the past two centuries, the global industrial transformation has led to a rapid increase in ecological scarcities. Growth in the global economy is transforming the character of the planet and especially of human life (Mebratu, 1998). Thus this study is about how the world can balance this two critical issues; entrepreneurial intentions and sustainability orientation. University students are the potential entrepreneurs and their intentions toward entrepreneurship is research-worthy as guided by the work of Kuckertz and Wagner (2010). Thus this study intends to explore the relationship between environmental sustainability orientation (ESO) and entrepreneurial intention. This research will help the policymakers to find out how the publicity for sustainable development will help entrepreneurship development.

Literature Review

In the 21st century, sustainability can be marked as a complementary word with entrepreneurship. Kuckertz and Wagner (2010) marked environmental and societal issues as "overabundant" for entrepreneurship development. In recent years, sustainability has evolved not only as a technical issue but also as a buzzword of daily life. Due to its complicity with different academic and professional disciplines, conceptualization of sustainability widely depends on the field of its application. Extant literatures widely explained sustainability from development and conservation point of views. Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Brundtland Commission, 1987). The realm of sustainability is constructed with three pillars that were coined by Elkington (1997), called Triple Bottom Line (TBL). TBL is a framework through which a business concern measures the performance of the business and the

¹Senior Lecturer, Business Administration Department, North Western University, Khulna. Email: fa_tasfia@yahoo.com

²Lecturer, Business Administration Department, North Western University, Khulna. E-mail: yousufsalahuddinbd@gmail.com

³Associate Professor, Business Administration Discipline, Khulna University, Email: sarif_ku@yahoo.com

success of the organization using three pillars: economic, social and environmental (Goel, 2010). In essence, TBL elaborates the environmental agenda integrating the economic and social lines in a way that the economic performances of the business have a positive relationship with its social and environmental activities. In the definition of TBL, Elkington (1997) used the terms profit, people and the planet as the three lines which belonged to the economic, social and environmental aspects respectively.

This study relates this sustainability knowledge with entrepreneurship development. Entrepreneurial intention is another key focus of this study. In the entrepreneurship literature, intentions have captured concentration of many scholars (Bird, 1988; Krueger et al., 2000). Individual behaviors, when the behavior is rare, hard to observe or involves unpredictable time lags (Krueger & Brazeal, 1994), can be predicted through intentions: According to Bird (1988), entrepreneurial intentions may be the establishment of new ventures and the creation of new value in existing ones. Bird (1988) and Shane and Venkataraman (2000) supported this view.

In line with this view, entrepreneurial intention is defined as a cognitive representation of the actions to be implemented by individuals to either establish new independent ventures or to create new value within existing companies.

Thus, the policy makers and entrepreneurship educators are keen to discover the forces to foster entrepreneurial intentions. Researchers considered that the intentions are the single most important predictor of actual behavior (Ajzen and Fishbein, 1977; Souitaris et al., 2007), studying the previous circumstances of entrepreneurial intentions. They found this result very effective especially among students (Krueger et al., 2000; Luthje and Franke, 2003; Souitaris et al., 2007).

Early researchers in this field focused exclusively on the environmentally oriented entrepreneurship (Staber, 1997; Keogh and Polonsky, 1998; Pastakia, 1998; Isaak 1999; Schaltegger, 2002; Linnanen, 2002; Walley and Taylor 2002; Lehmann et al., 2005; Schaper, 2005). But the review of the relevant literature demonstrated that there are very limited measures of Environmental Sustainability Orientation (ESO) for the small businesses or SMEs. Roxas and Chadee (2012) used the three facets model of ESO measurement.

Awareness of environmental sustainability issues, the first facet measures the extent to which an individual is aware of the pressing environmental issues that may have profound actual or potential impact on all residents of the locality, including the business firms. An action for environmental sustainability, the second facet, captures the nature and extent of sustainable business activities that an individual has actually implemented. And the third facet, appreciation for environmental sustainability, describes the extent to which an individual enjoys the tangible benefits of being positive in satisfying their ecological responsibility.

Theoretical reasoning and the empirical results of the work of Kuckertz and Wagner (2010) indicate that individual sustainability orientation can indeed explain entrepreneurial intention to some degree. This study therefore attempts to define the relationship between environmental sustainability orientation (ESO) and entrepreneurial intention in Asian context widening the scope of entrepreneurial literature.

Methodology

The primary objective of this study is to investigate the impact of environmental sustainability orientation on entrepreneurial intentions. In the light of earlier literature, sustainability orientation had been described as the summation of an individual's appreciation of environmental sustainability, awareness of the environmental sustainability issues and actions for environmental sustainability. The study is limited within Khulna city, a divisional city in the southern part of Bangladesh. This primary data based research focused on the university

stuc
alur
thes
inte
surv
Khu

Qu
und
(sci

A s
part
orie
entr
disa
orie
of
sust
(20
for
Res
Var
rese

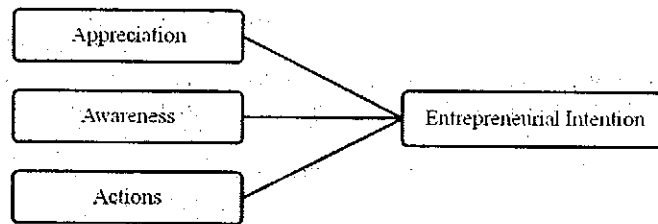
students. Previous scholars' study (Kuckertz and Wagner, 2010) was primarily based on the sample students and alumni of science and engineering degree programs at the Technical University of Munich (TUM). They considered these sample students suitable to test the relationship between sustainability orientation and entrepreneurial intention. Widening the scope of the earlier researches, students from both commerce and humanities were also surveyed along with the science students. So, in this case, population covers all the under-graduate students of Khulna city from which sample was selected.

Quota sampling, a non-probability sampling technique, was applied to collect data for the study. A total of 90 undergraduate students were interviewed ensuring physical presence of interviewers. 30 students from each group (science, humanities and commerce) were surveyed to maintain the quota.

A structured questionnaire was set to conduct the survey. The questionnaire consists of three major parts. The first part includes questions to collect demographic information. Second part intends to measure the sustainability orientation of the respondents. Third part of the questionnaire asks the respondents about their level of entrepreneurial intention. All the variables were measured using five point Likert scale ranging from strongly disagree (1) to strongly agree (5). Instead of using a group of general questions to measure the sustainability orientation, this paper followed the three dimensions approach of Roxas and Chadee (2012). The three dimensions of sustainability orientation in this research are the appreciation, awareness and actions for environmental sustainability. Entrepreneurial orientation is measured with the three questions introduced by Kuckertz and Wagner (2010). Ordinary Least Square Regression (OLS) with the help of statistical package 'SPSS (version 16.0)' was used for data analysis.

Result

Variables were chosen by reviewing a number of previous studies relevant to this study. The variables for this research are appreciation, awareness and actions.



Where, Appreciation = Individual's appreciation of environmental sustainability
 Awareness = Individual's awareness of the environmental sustainability issues
 Actions = Individual's actions for environmental sustainability
 Entrepreneurial Intention = Individual's intention toward entrepreneurship

Table 1: Model Summary (Researchers' own calculation)

| Model Summary | | | |
|--|--------------|-------------------|----------------------------|
| R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 0.784 | 0.614 | 0.546 | 0.733 |
| Predictors: Appreciation of environmental sustainability, Awareness of the environmental sustainability issues, Actions for environmental sustainability | | | |

A causal relationship had been tested where entrepreneurial intention is the dependent variable and awareness, action and appreciation for environmental sustainability are independent. The model summary shows that 61.4 percent of the dependent variable can be explained by the independent variables (R Square = 0.614). It implies that individual's appreciation of environmental sustainability, awareness of the environmental sustainability issues and actions for environmental sustainability can affect 61.4 percent variation in entrepreneurial intention.

Table 2: Coefficients from the regression analysis (Researchers' own calculation)

| Coefficients ^a | | |
|--|---|-------|
| | Standardized Coefficients, Beta (β) | Sig. |
| Awareness of the environmental sustainability issues | 0.605 | 0.003 |
| Actions for environmental sustainability | -0.124 | 0.496 |
| Appreciation of environmental sustainability | 0.348 | 0.089 |

a. Dependent Variable: Entrepreneurial Intention

Both awareness and appreciation for environmental sustainability are found statistically significant on a 10 percent significant level. According to this model, awareness for the environmental sustainability ($\beta = 0.605$) is the most vital variable thus influences the entrepreneurial intention or motivation. Even this value of β (0.605) is statistically significant when the significance level is 1, percent. Individual's appreciation of environmental sustainability is appeared as another important variable ($\beta = 0.348$). On the contrary, individual's actions for environmental sustainability is found negatively ($\beta = -0.124$) related with entrepreneurial intention though the relationship is statistically insignificant and very weak. Thus, the variable is unlike to affect dependent variable.

Discussion

Primary purpose of this study is to explore the relationship between environmental sustainability orientation and entrepreneurial intention of the undergraduate students targeting the Khulna city region of Bangladesh. Key variables under environmental sustainability orientation in this research were the appreciation, awareness and actions for environmental sustainability. The findings show that sustainability orientation is related with entrepreneurial intention.

Awareness of the environmental sustainability is the strongest variable of these three. Individuals those are aware of the environmental issues of their locality, are expected to be motivated to resolve this issues. This makes them a driver to change. This motive for bringing 'change' drives them toward entrepreneurship.

Individual's appreciation of environmental sustainability is found as another influential factor for entrepreneurial intention. Though the level of correlation between this two (appreciations of environmental sustainability and entrepreneurial intentions) is not very strong, yet individual's appreciation toward environmental sustainability contributes positively on the intentions to become an entrepreneur.

Actions for environmental sustainability surprisingly show negative relationship with the entrepreneurial intentions. Though this relationship is not statistically significant, it contradicts with the findings from other two variables. Individuals of this age (Undergraduate-Students) are often found to be forced to behave in certain directions in different situations. So, they can be forced to act positively for environmental sustainability (by their academic institution or some other concern groups). Not necessarily, this force will help in developing entrepreneurial intentions among undergraduate students. Thus, this relationship is found negative.

Conclusion and future direction

Through this study, researchers discovered the relationship between sustainability orientation and entrepreneurial intention using relevant variables selected from previous literatures. Findings show that individual's awareness and appreciation of environmental sustainability contributes positively to the entrepreneurial intentions. So, the concern policymakers should focus on making the potential entrepreneurs more sustainability oriented. The outcomes of this research should be accepted along with some limitations as this study was conducted based on the data from Khulna City only. Thus the research findings may not portray the opinions of all the potential entrepreneurs of the country. Moreover, it is widely recognized that education is not a prerequisite to become an entrepreneur. Research, covering the other potential entrepreneurs along with the undergraduate students, will bring more effective result. Comprehensive studies can be designed targeting the potential entrepreneurs from different parts of Bangladesh.

References

- Ajzen, I. and Fishbein, M. (1977), "Attitude-behavior relations: A theoretical analysis and review of empirical research", *Psychological Bulletin*, Vol. 84, pp. 888-918.
- Bird, B. (1988), "Implementing entrepreneurial ideas: the case for intentions", *Academy of management review*, Vol. 13, pp. 442-454.
- Brundtland, G.H. (1987), "Our Common Future: World Commission on Environmental Development", *The Brundtland-Report Oxford University Press, Oxford, UK*.
- Elkington, J. (1997), "Cannibals with forks", *The triple bottom line of 21st century*.
- Goel, P. (2010), "Triple bottom line reporting: an analytical approach for corporate sustainability", *Journal of finance, accounting, and management*, Vol. 1, No. 1, pp. 27-42.
- Isaak, R. (1999), "Green logic", *Ecopreneurship, Theory and Ethics. West Hartford, Connecticut: Kumarian*.
- Keogh, P. D. and Polonsky, M. J. (1998), "Environmental commitment: a basis for environmental entrepreneurship?", *Journal of Organizational Change Management*, Vol. 11, No. 1, pp. 38-49.
- Kuckertz, A. and Wagner, M. (2010), "The influence of sustainability orientation on entrepreneurial intentions - Investigating the role of business experience", *Journal of Business Venturing*, Vol. 25, pp. 524-539.
- Krueger, N. F. and Brazeal, D. V. (1994), "Entrepreneurial potential and potential entrepreneurs", *Entrepreneurship theory and practice*, Vol. 18, pp. 91-91.
- Krueger, N. F.; Reilly, M. D. and Carsrud, A. L. (2000), "Competing models of entrepreneurial intentions", *Journal of Business Venturing*, Vol. 15, pp. 411-432.
- Lehmann, M., Christensen, P. and Larsen, J. M. (2005), "Self-regulation and new institutions. The case of green networks in Denmark".
- Linnanen, L. (2002), "An insider's experience with environmental entrepreneurship", *Greener Management International*, Vol. 38, pp. 71-80.
- Luthje, C. and Franke, N. (2003), "The 'making' of an entrepreneur: testing a model of entrepreneurial intent among engineering students at MIT", *R&D Management*, Vol. 33, No. 2, pp. 135-147.
- Mebratu, D. (1998), "Sustainability and sustainable development: historical and conceptual review", *Environmental impact assessment review*, Vol. 18 No. 6, pp. 493-520.
- Pastakia, A. (1998), "Grassroots ecopreneurs: change agents for a sustainable society", *Journal of Organizational Change Management*, Vol. 11, No. 2, pp. 157-173.
- Roxas, B. and Chadee, D. (2012), "Environmental sustainability orientation and financial resources of small manufacturing firms in the Philippines", *Social Responsibility journal*, Vol. 8 No. 2, pp. 202-226.
- Schaltegger, S. (2002), "A framework for ecopreneurship", *Greener Management International*, Vol. 38, pp. 45-58.
- Schaper, M.T. (Ed.). (2012), *Making ecopreneurs: developing sustainable entrepreneurship*. Gower Publishing, Ltd..
- Shane, S. and Venkataraman, S. (2000), "The promise of entrepreneurship as a field of research", *Academy of management review*, Vol. 25, No. 1, pp. 217-226.
- Souitaris, V., Zerbini, S. and Al-Laham, A. (2007), "Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources", *Journal of Business Venturing*, Vol. 22, pp. 566-591.
- Staber, U. (1997), "An ecological perspective on entrepreneurship in industrial districts", Vol. 24, No. 1, pp. 37-48.
- Walley, E. and Taylor, D. (2002), "Opportunists, champions, mavericks? A typology of green entrepreneurs", *Greener Management International*, Vol. 38, pp. 31-35.