

## Exploring the perceptions of undergraduate students ecopreneurial intention

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**Abstract:** The aim of this study is to clarify whether undergraduate students perceive green values and passion as their attributes towards becoming ecopreneurs. Additionally, environmental commitment was added to test the indirect effect on the predictors and ecopreneurial intention. The results confirmed that green values and perceived passion were motivators for undergraduates' ecopreneurial intentions. However, these emotions are indirectly influence by students' environmental committed; an augmented characteristics that is important for students' decisions to choose and become ecopreneurs. This study also provides implications for entrepreneurship literature and educators.

**Key words:** Ecopreneurial intention; Green values; Perceived passion; Environmental commitment; Mediation

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### 1. Introduction

College graduates represent one of the largest pools of job seekers upon graduation. While most of them may be employed by firms, there are small percentages of graduates that chose to become entrepreneurs (Barringer & Ireland, 2012; OECD, 2014). These groups of college graduates often have entrepreneurs' characteristics and motivation that influence them to this profession (Shane et al, 2003). Some may be motivated from the entrepreneurial education they have undertaken (Van der Sluis & Van Praag, 2004) with some financial aids from the government (Zainalabidin Mohamed et al., 2012). Others have family business backgrounds that inspired them to pursue this career path (Drennan et al., 2005; Zainalabidin Mohamed et al., 2012).

Extant entrepreneurial literatures show there are many precedent empirical studies on entrepreneurial intentions including comparative studies amongst university students. For example, a research shows Indonesia students' entrepreneurial intention is higher than Norwegian students. It was social status and economic of the countries that elicited their intention (Kristiansen and Indarti, 2004). De Pillis and Reardon (2007) study engaged participants from undergraduate and MBA programs in Ireland and US. They found the decision to become an entrepreneur varies in different cultures. In sum, these studies infer students' motivating factors for entrepreneurial intentions differ in various countries.

However, most entrepreneurial studies did not differentiate a specific type of entrepreneurial intention. Moreover, our literatures search found there is dearth of studies in this research area in Malaysia except Zainalabidin Mohamed's et al,

(2012) research. The authors evaluated graduates' intention towards becoming agri-entrepreneurs. Here, we further identified there is lack of ecopreneurial study locally. Nonetheless, authors who researched in ecopreneurial studies were mainly conducted in qualitative interviews and in advanced countries (Schaltegger, 2002; Dixon & Clifford, 2007; Kirkwood & Walton, 2010).

Hence, observing these gaps, this paper aims to clarify the perceptions of business school graduating students' motivating factors on ecopreneurial intentions and choice of eco-products. In the former, it confirms whether students possess the same motivators as experienced ecopreneurs and in the latter, it derives lists of eco-products and services they perceive are viable for eco-business start-up promotion. Additionally, based on theoretical justifications, we proposed environmental commitment as mediator to analyses the indirect effect on the predictors, green values and perceived passion and the criterion, ecopreneurial intention.

This paper presents the literature review and the hypotheses derived from the theoretical background related to this study in the first section. In the second section, the research methods and results are presented and explained. Lastly, the findings are discussed with limitations and recommendations for further study.

### 2. Literature review

Ecopreneur is a change agent who pursues sustainable betterment by establishing entrepreneurial venture. Whether for-profit or non-profit they devote their energies on educating the community about environmentalism as their ultimate mission (Pastakia, 1998; Chopra, 2014).

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Reflecting on Kirkwood and Walton's (2010) interviews on 14 ecopreneurs on their intentions to engage in this business, they found five motivating factors for their businesses. Here, we aim to adopt two factors of green values and passion from the authors to extend and quantify these factors in quantitative research with business students as participants. It is feasible to use these motivators because green values reflect on individual's perceptions on environment (McShane et al., 2013) and passion is an emotional state of individual (Smilor, 1997). Notably, when this study is extended in Malaysia where ecopreneurial study is still at its inception, the findings are useful for entrepreneurial literature, ecopreneurial business start-up and educators.

## 2.1. Green values

In organizational behavior literature, values are defined as stable evaluative beliefs that guide individual's preferences for courses of action in different situation (McShane et al., 2013). In the context of green values, it reflects on the beliefs of ecopreneurs whose preferences are for implementing environmental related activities and businesses (Isaak, 1998; Kirkwood & Walton, 2010).

In the interview, Kirkwood and Walton (2010) found at least half of the interviewees agreed they would not exploit market opportunities at the expense of their green values. Other interviewees have mixed opinions and admitted that their green motivations were tied to their monetary motivations. As such, the authors concluded that green values are not the key motivating factor for all ecopreneurs.

At the time of the study, these ecopreneurs were of middle ages in established eco-businesses. This implies that age may be associated with green values. For example, some older people were found to have higher levels of green conscious and behavior (Scott and Willits, 1994; Diamantopoulos et al., 2003). Yet, other studies have identified younger generation is the most expected age groups who are likely to create positive environmental changes in the future (Jackson, 1983; Zeidner and Shechter, 1988; Diamantopoulos et al., 2003). Accordingly, this young age group's environmental spirits in relation to their existing green values is unknown. Moreover, given an opportunity for eco-business start-up, the extent of green values as motivating factor influencing their intentions of becoming ecopreneurs has yet to be evaluated. Thus, we posited that:

H1: There is a positive relationship between students' green values and ecopreneurial intention.

## 2.2. Perceived passion

Passion is an enduring emotional state that drives individual to achieve an outcome (Cardon et al. 2005). Smilor (1997) described it as an enthusiasm, joy, and zeal of individual. In organisation, passionate employees are found to contribute effectively to firm growth (Baum et al. 2001; Shane

et al. 2012). It is the central component for individual's success that stem from hard work and with greater effect (Smilor, 1997; Cardon, 2008). Similarly, this relates to ecopreneurs who are passionate about environmental goals, would play their roles in contributing their efforts to reducing environmental degradation by innovating green products or services for green consumers. Additionally, passion is considered as inseparable motivational factor to green values (Kirkwood and Walton, 2010). Cardon et al. (2009) used the termed perceived passion to "refer to the extent to which others perceive the entrepreneur to be passionate about their venture". The authors examined the passion investor angels perceive on entrepreneurs display when applying for funding. Linking passion to undergraduate business students and their diverse career objectives little is known about which career path possibility they are passionate to pursue. Specifically, if we evaluate how students perceive their existing passions towards becoming an ecopreneurs. Based on this perspective, we hypothesized that:

H2: There is a positive relationship between students' perceived passion and ecopreneurial intention.

## 2.3. Mediation – environmental commitment (EC)

The findings on the relationship between business environmental commitment and sustainable performance have been inconsistent. Liu et al. (2014) argued that it depends on the level of firm's environmental commitment. That is, the higher the level of commitment, sustainable performance is assured because top management pay significant attention to achieving their mission. This statement is consistent with Locke's et al. (1998) study where performance depends on the amount of variance in goal commitment. The authors implied that commitment is an attachment or determination that gauges individual's resistance to changing his/her goal.

Administering this implication to ecopreneurial study, we are uncertain about students' level of commitment (as younger generation) to environment and their goals to become ecopreneurs -- in particular they have no experience in eco-business. Based on this argument, we have a notion that if students who are passionate to become ecopreneurs, their alleged commitment to environment would overcome any difficulties encounter in achieving their goals (Shah & Kruglanski, 2008; Dalton & Spiller, 2012; Presslee et al., 2013).

Past research has also mentioned that commitment was used either as a direct and indirect measure. In the latter method of measure, commitment was found to be a significant mediator for intention type and number of goals (Locke, 1998). For this reason, applying the concept of commitment as environmental commitment, it is reasonable to state that if students have such

commitment to the environment, they are likely to possess the intrinsic desires to support environmental issues to environmental goals and values (Keogh & Polonsky, 1998). Moreover, environmental commitment is used as mediator to green values and perceived passion as predictors, and ecopreneurial intention as criterion, the outcomes of these predictions will indicate how and why such effects occur for ecopreneurial intention (Baron & Kenny, 1986). Hence, we hypothesized the commitment to environment indirectly determines students' decisions to ecopreneurial intentions.

H3: Students' environmental commitments have an indirect effect on the green values and ecopreneurial intention.

H4: Students' environmental commitments have an indirect effect on perceived passion and ecopreneurial intention.

### 3. Research method

#### 3.1. Procedure

The instruments were distributed to students in a local university who had attended the Innovation Management, Global Marketing, and Global Finance classes. We targeted these groups of students because most were in their second-year and final-year and have completed the entrepreneurship subject in the university. Prior permissions from the lecturers who taught the classes were sought and the survey instruments were distributed about 15 minutes before the end of the lecture sessions. In this convenience sampling, the students were not forced to answer the instruments. The instruments were collected back after completion. A total of 221 students participated in the survey.

#### 3.2. Measures

The questionnaires consist of two parts. Part A contains the students' demographics characteristics regarding gender, marital status, age group and others. In Part B, it consists of questions relating to three exogenous constructs of green values (GV) with 6 items, perceived passion (PP), 9 items, environmental commitment (EC), 8 items, and one endogenous variable, ecopreneurial intention (EI)

with 8 items, totaling 31 items. These constructs were extracted from qualitative research and case studies (Dixon & Clifford, 2007; Kainrath, 2009; Kirkwood & Walton, 2010). The student participants provided their subjective views of ecopreneurial intention by ticking on each item with a 7-point Likert scale (1= completely disagree to 7= completely agree).

### 3.3. Analyses

The data was analyzed using IBM statistical package for social science (SPSS) and IBM analysis of moment structures (AMOS) version 22. The analyses of the hypotheses consist of two steps. First, the latent variables extracted from qualitative research and case studies were assessed for assumptions test to check for violation for normality, Cronbach's alpha, and Pearson correlation before performing the exploratory factor analysis (EFA). EFA allows the researchers to uncover the underlying structure of a set of variables with the aim of identifying the relationships between the measured variables (Field, 2009). The components extracted from EFA are then confirmed using the second-order confirmatory factor analysis (CFA) that involved model specifications between the constructs (Hair et al., 2010). Lastly, a mediation analysis was conducted after CFA.

## 4. Results

### 4.1. Descriptive statistics

In Table 1, of the 218 participants (3 cases were deleted), 82 (37.6%) were male and 136 (62.4%) were female. As regards age group, the largest group was between 18-21 years of age (70.2%), followed by those aged 22-25 (27.5 %). Most of the students were in their third-year (52.3%) and final year (45.9%), and majority of the students were locals. In Table 2, the lists of eco-products and services are presented. Students' perceived eco-friendly gadgets (80.3%) and green consultancy services (88.1) are important for eco-business start-up promotion.

**Table 1:** Demographic statistics

Descriptions of students	Number	Percent
<i>Gender</i>		
Male	82	37.6
Female	136	62.4
<i>Marital Status</i>		
Single	217	99.5
Married	1	0.5
<i>Age: Mean = 1.32; SD = 0.515</i>		
18 – 21	153	70.2
22 – 25	60	27.5
26 – 29	5	2.3
<i>Nationality:</i>		
Malaysian	211	96.8

International	7	3.2
<i>Year in university: Mean = 2.44; SD = 0.533</i>		
Beta (Second-year)	4	1.8
Gamma (Third-year)	114	52.3
Delta (Final year)	100	45.9

**Table 2:** List of Eco-products and services

No	Classification of eco-products and services	Frequency		Percentage	
		Yes	No	Yes	No
1	Household eco-products. E.g., eco-friendly furniture and others.	94	124	43.1	56.9
2	Eco-friendly cleaning services	144	74	66.1	33.9
3	Eco-friendly apparel and accessories. E.g., eco-friendly clothes and others.	149	69	68.3	31.7
4	Organic healthcare products. E.g., organic supplements for diabetes	113	105	51.8	48.2
5	Organic beauty products. E.g., organic lipstick and others.	133	85	61	39
6	Organic food. E.g., organic honey and others.	91	127	41.7	58.3
7	Eco-friendly construction. E.g., eco-friendly building and others.	175	43	80.3	19.7
8	Eco-friendly textiles or papers.	137	81	62.8	37.2
9	Eco-friendly materials. E.g., bamboo matting and others.	160	58	73.4	26.6
10	Green vehicles. E.g., hybrid electric vehicles and others.	107	111	49.1	50.9
11	Eco-friendly transportation. E.g., eco-friendly taxi service and others.	131	87	60.1	39.9
12	Eco-friendly tourism.	151	67	69.3	30.7
13	Eco-friendly hospitality service. E.g., eco-friendly hotel and others.	155	63	71.1	28.9
14	Green consultancy services. E.g., consult in the sense of ecology and others.	192	26	88.1	11.9
15	Energy conservation equipments. E.g., solar power conservation equipments and others.	170	48	78	22
16	Disposal management services. E.g., recycling used furniture and others.	162	56	74.3	25.7
17	Ecological process. E.g., natural farming and others.	153	65	70.2	29.8
18	Eco-friendly agricultural products. E.g., organic fertilizer and others.	135	83	61.9	38.1
19	Eco-friendly sports and entertainment. E.g., eco-friendly sporting goods and others.	170	48	78	22
20	Eco-friendly gadgets. E.g., eco-friendly chargers and others.	175	43	80.3	19.7
21	Eco-friendly packing and printing services.	146	72	67	33
22	Eco-friendly machines and equipment. E.g., eco-friendly printer and others.	156	62	71.6	28.4
23	Eco-friendly consumer electronics. E.g., eco-friendly laptop and others.	132	86	60.6	39.4
24	Others.	212	6	97.2	2.8

**4.2. Factor analysis**

In factor analysis, a principal component analysis (PCA) was computed on 31 items using orthogonal varimax rotation. The Kaiser-Meyer-Olkin (KMO) measure for sampling adequacy was 0.868 and Bartlett’s test of sphericity,  $\chi^2 = 1884.493$ , degree of freedom (df) = 153 and significant at 0.000. The results indicated the items correlations were sufficiently large for PCA (Field, 2009). With the sample size of 221, the factor loading was set at 0.4 (Hair et al, 2010, p. 117). Table 3 shows the remaining items that cluster into four components. Component 1 represents ecopreneurial intention has 6 items (2 deleted), component 2 represents green values consists of 4 items (2 deleted), component 3 is perceived passion with 4 items (5 deleted), and components 4 has mixed items that belong to perceived passion and environmental commitment. However, after checking for items statements for consistency, we have decided that component 4 represents environmental commitment. After deletion the four components have 18 items or scales. To confirm the total variance explained for the four components the final factor loading results were computed using Monte Carlo PCA for parallel analysis. After computation, the total variance explained was 59% (Watkins, 2000; Pallant, 2007). Following this, the Cronbach’s alpha ( ) that measures the internal consistency of the questionnaire items was analyzed. Referring to Table 4, each construct has an alpha value of 0.8, an evidence of scales reliability.

**4.3. Model specifications**

The four components extracted from exploratory factor analysis were specified according to the proposed model (see Fig. 1). This model is confirmed using second-order confirmatory factor analysis (CFA). These 3 constructs model specifications between constructs were tested with the path relationships. During the process, 3 cases were deleted due to significant Mahalanobis distance that detected some outliers (Hair et al, 2010). The output from the path relationships between constructs has the chi-square (  $\chi^2$  ) value of 131.72, degrees of freedom (df) = 66,  $\chi^2/df = 1.996$ , and  $p = 0.000$ . Other indications of good model are the root mean square error of approximation (RMSEA), 0.068, p-close, 0.898, Tucker-Lewis index (TLI), 0.932,

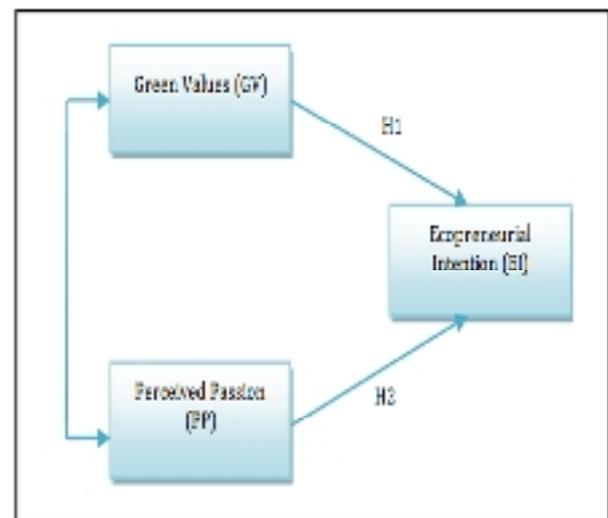
comparative fit index (CFI), 0.951, fit index (NFI), 0.908 and standardized root mean square residual (SRMR), 0.0497.

**Table 3:** Summary of exploratory factor analysis results

	Component			
	1	2	3	4
EI5	0.787			
EI3	0.778			
EI2	0.740			
EI4	0.733			
EI6	0.732			
EI1	0.654			
GV5		0.819		
GV4		0.808		
GV2		0.715		
GV3		0.714		
PP7			0.819	
PP5			0.760	
PP8			0.757	
PP6			0.726	
EC7				0.822
EC8				0.808
PP1				0.626
PP4				0.579

Extraction Method: Principal Component Analysis.  
 Rotation Method: Varimax with Kaiser Normalization.<sup>a</sup>  
 a. Rotation converged in 6 iterations.

Total variance explained – 59.0 % after Monte Carlo PCA for parallel analysis  
 Kaiser-Meyer-Olkin Measure of Sampling Adequacy: 0.868;  
 Bartlett’s test of sphericity,  $\chi^2 = 1884.493$ ; df: 153;  
 Significant: 0.000



**Fig. 1:** Conceptual Framework

**Table 4:** Cronbach's alphas

Constructs	Assumption tests	No. of items	4 components	No. of items
GV	0.816	6	0.814	4
PP	0.900	9	0.840	4
EC	0.867	8	0.818	4
EI	0.876	8	0.865	6
Total		31	Total	18

In testing the hypotheses, H1 and H2 were significant with estimates for green values, 0.368 (p

= 0.004) and 0.537 (p = 0.000). This means both hypotheses were supported. The overall path

interrelationships between all the constructs had squared multiple correlations (R<sup>2</sup>) of 0.337 indicating that these factors accounted for 33.7% of the variance for ecopreneurial intention is explained by the variables of green values and perceived passion (see Table 5).

In Table 6, the model has the construct reliabilities of 0.83 for green values, 0.86 for perceived passion, and 0.84 for ecopreneurial

intention. The content was validated by theoretical justification and the convergent validity by using variance extracted calculation with a threshold value of 0.5. In the table, the correlations values between constructs are lower than the square root of average variance extracted (AVE) indicating discriminant validity (Hair et al., 2010, pp. 709-710).

**Table 5:** Hypotheses testing for safety teamwork conceptual model

Constructs and Items Relationships			Est.	P	Ho.	Std. Reg Wt	SMC
EI	←	GV	0.368	0.004	H1 = S	0.273	EI = 0.337
EI	←	PP	0.537	***	H2 = S	0.411	
<b>Model Fit</b>							
Chi-square <sup>2</sup> = 131.72, degree of freedom (df) = 66, <sup>2</sup> /df = 1.996, p = 0.00, normed fit index (NFI) = 0.908, Tucker-Lewis index (TLI) = 0.932, comparative fit index (CFI) = 0.951, root mean square error of approximation (RMSEA) = 0.068, and standardized root mean square residual (SRMR) = 0.0497.							
Note: *p<0.05; **p<0.001; ***p<0.000; S – significant; Std. Reg. Wt. = Standardized regression weight; SMC – Square multiple correlations; EI – Ecopreneurial Intention; GV – Green Values; PP – Perceived Passion.							

**Table 6:** Internal consistencies, construct reliability, correlations, and AVE of the constructs

Constructs	Mean	S.D	CR	VE	1	2	3	4	5
1. GV	5.76	0.73	0.83	0.73	0.54				
2. PP	5.02	0.77	0.86	0.78	0.34	0.61			
3. EI	5.30	0.81	0.84	0.71	0.33	0.44	0.5		

Note: CR is the construct reliability. The diagonal values in bold represent the square root of average variance extracted (AVE) between constructs and their measures. Off-diagonal values are the correlations between the constructs. All correlations are significant at the 0.01 (2-tailed). The diagonal values higher than the off-diagonal values in the same row and column indicate discriminant validity. Variance extracted (VE) values greater than 0.5 indicates convergent validity.

#### 4.4. Mediation

In Fig. 2, the mediator, environmental commitment (EC) was added to the constructs of green values (GV) and perceived passion (PP) on ecopreneurial intention (EI). The aim is to assess if there is any mediating effects of EC on these constructs. In the mediation analysis, the direct effect on GV and EI and PP to EI were first measured. The output indicated for GV and EI has an estimate of 0.368 (p = 0.004) and PP and EI, 0.537 (p < 0.000). Table 7 output for GV to EC was 0.403 (p < 0.000) and EC to EI was 0.498 (p = 0.025). Similarly, the outputs for PP to EC was 0.479 (p < 0.000). The results for GV

direct path to EI has an estimate of 0.182 (p = 0.258) and PP to EI, 0.256 (p = 0.085). Both direct effect results showed insignificant p values and reduction in estimates indicating full mediation (Hair et al., 2010, p.768). To confirm there is a true mediating effect, the estimates and standard errors for each construct was tested using Sobel Test online calculator (Gaskination, 2010). Overall, the Sobel test statistics for 2-tailed probability showed 0.049 for GV to EC and EI, and 0.037 for PP to EC and EI. This implies H3 and H4 are supported with full mediation (Sobel, 1982).

**Table 7:** Results of mediation

Hypotheses on Mediation	Direct w/o med	Std. Direct w/med	Std. Indirect w/med	Std. Indirect w/med	95% CI	Mediation
PP -> EI	0.618(s)	NA	NA	NA		
H3: GV-EC-EI	NA	0.182(ns)	0.403(s)	0.498(s)	0.542 - 0.861	Yes/Full
H4: PP-EC-EI	NA	0.256(ns)	0.479(s)	0.498(s)	0.542 - 0.861	Yes/Full
Model fit: Chi-square <sup>2</sup> = 206.619, df = 120; p = 0.000; <sup>2</sup> /df = 1.722; NFI = 0.894; TLI = 0.938; CFI = 0.952; SRMR = 0.0522; RMSEA = 0.058						
Note: w/out med – without mediation; w/med – with mediation; *p<0.05; **p<0.001; ***p<0.000; NA - Not applicable; s – significant; ns – not significant.						
Sobel Test statistics for H3 = 1.969, 2-tailed probability = 0.049; H4 = 2.0808, 2-tailed probability = 0.037						

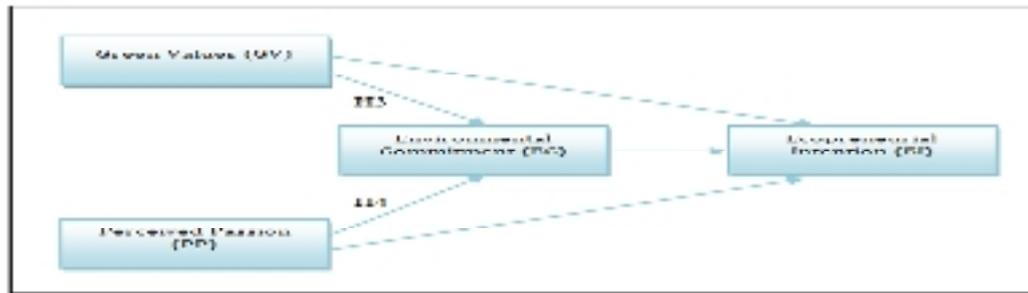


Fig. 2: Mediation

## 5. Findings and discussion

This empirical research clarifies students' perceptions on the motivating factors toward becoming ecopreneur after graduation. The eco-products and services the students perceived suitable for eco-business promotion locally are listed. Furthermore, this research used environmental commitment as mediator to assess its indirect effect on perceived passion and green values on ecopreneurial intention. The findings and implications are first discussed follow by research limitations and proposed future study, and conclusion.

In this study, the significant findings for H1 and H2 clearly indicates there is a positive relationships between green value (GV) and perceived passion (PP) on ecopreneurial intention (EI) respectively. The findings are consistent with the previous inductive studies by Kirkwood & Walton (2010). GV usually co-exists as motivating factor and a gap for eco-products and services in the market (Kirkwood & Walton, 2010). Additionally, reflecting this to the lists of eco-products and services students have selected earlier for eco-business start-up promotion, this evidence implies probable chances students may promote the products and services they have identified.

Besides green value, perceived passion is identified as dominant variable to ecopreneurial intention. The significant findings for both variables also confirmed what Kirkwood and Wlaton, (2010) claimed as inseparable motivators for ecopreneurs (Kirkwood & Walton, 2010). That is, if students are passionate for environment sustainability in business, their perceived passions are likely to trigger self-efficacy, which is one necessary element for ecopreneur (Smilor, 1997). Likewise, students with perceived passion possess manipulating traits that direct their effort to learn specific skills necessary for eco-business that lead them to the competency of ecopreneurs (Baum, 2001).

The relationship between green value and ecopreneurial intention was mediated by environmental commitment. The full mediating effect of environmental commitment implies students' actions determine the types of outcomes in given situations (Bandura, 1986). Simply, students' level of commitment to environment couple with their evaluative beliefs in green values determines

the outcome of their decisions toward becoming ecopreneurs. Students who judge themselves with low commitment to environment and green values are unlikely to pursue the cause they believe in.

Similarly, the passion to pursue career in ecopreneurs by students after graduation implies strong inclination for time investment and energy to reach their passionate goals (Frijda et al., 1991; Vallerand, 2008). Passion reflects an emotional attribute and environmental commitment evokes a strong dedication to achieve a line of action (Lee & Graefe, 2002). Passion without commitment only projects individual's emotional state that one cannot define oneself as bona fide ecopreneurs (Vallerand, 2012). Basically, these two attributes quality complement one another for ecopreneurs' long term achievable goals.

Finally, with regard to theoretical implication on entrepreneurial intention, it requires the consideration of individuals' intrinsic motivations (Shane et al., 2003). This study implies ecopreneurial intention begins with students' inherent attributes of green values and perceived passions. Students' decisions to pursue ecopreneurial path are augmented by their environmental commitment. With this commitment they are able to take the risk of becoming ecopreneurs (Llewellyn & Wilson, 2003). This study contributes to part of Categorization Theory where it explains decision-making and human behaviour (Mervis & Rosch, 1981; Palich and Bagby, 1995).

Additionally, for practical implication, educators should emphasize to students that different types of entrepreneurial path elicits different motivating factors. This awareness helps students enhancing their perceptions on ecopreneurial intentions and better preparing them for career expectations (Backhaus, 2003; Hurst & Good, 2009).

## 6. Limitations and recommendations for further study

This study has two key limitations. First, the research was conducted in a local university's business faculty on undergraduate students in their third and final year of their studies by convenience sampling. Although the sample size is adequate, this group of students' perceptions on ecopreneurial intentions is not generalizable for other business students in different universities. Furthermore, since it is a preliminary study, it is recommended the same

study be extended to other universities, both locally and in overseas for the purpose of testing-and-retesting for the factors' reliability and validity. Further tests also confirm the direction for generalizability in this study.

Second, this study did not clarify the demand aspects for eco-products and services from the local green consumers. As such, it is recommended conducting parallel study for the local eco-consumers to evaluate the market demand and size. It is suggested that the same lists of eco-products and services to be distributed in the study. The findings can gauge the size of the market segments and assess whether students' viewpoints on eco-products and services for start-up promotion matches with eco-consumers' demands. Linking both could ensure effective deployment of marketing strategy for ecopreneurs.

## 7. Conclusion

This exploratory study clarified the relationships between green values and perceived passion on students' ecopreneurial intention. Furthermore, green values and passion are emotional attributes that require students' environmental commitment to becoming ecopreneurs and maintaining their visions (Keogh & Polonsky, 1998). However, further studies are required to validate the findings. To ensure consistency of future study, the same instrument can be used and students must have some knowledge or attended the subject in entrepreneurial study. If researchers find some difficulties in collecting the data from the classroom, online survey is encouraged.

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