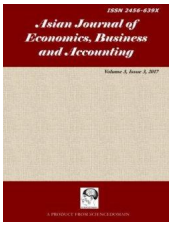

Asian Journal of Economics, Business and Accounting

6(3): 1-8, 2018; Article no.AJEBA.40598
ISSN: 2456-639X

Factors Influencing Entrepreneurial Intentions among Technical University Students in Ghana: Evidence from Ho Technical University

Lolonyo Letsa[1*] and Helen Mavis Dah[1]

[1]Department of Hospitality and Tourism Management, Ho Technical University, Ho, Ghana.

Authors' contributions

This work was carried out in collaboration between both authors. Author LL designed the study, wrote the protocol and wrote the first draft of the manuscript. Author HMD managed the literature searches and analyses of the study. Both authors read and approved the final manuscript.

Article Information

DOI: 10.9734/AJEBA/2018/40598
Editor(s):
(1) Fang Xiang, International Business School, University of International and Business Economics, China.
Reviewers:
(1) Darmesh Krishanan, Science University, Malaysia.
(2) Eslyn Isaacs, University of the Western Cape, South Africa.
(3) Lawrence Jekwu Okoye, University of Maiduguri, Nigeria.
Complete Peer review History: http://www.sciencedomain.org/review-history/24210

Review Article

Received 28th January 2018
Accepted 3rd April 2018
Published 18th April 2018

ABSTRACT

The purpose of this study is to examine the factors influencing entrepreneurial intentions among Technical University Students in Ghana. This study develops a theoretical structural model representing the impact of four latent variables on the Theory of Planned Behaviour by introducing propensity to take risk. Data from a questionnaire of 356 respondents was analyze using the Partial Least Square Approach to Structural Equation Modeling (SEM). The SEM model was assessed based on the measurement model and the structural model. Factor Loadings, Cross Loadings, Average Variance Extracted Cronbach's alpha, and Composite reliabilities of the latent variables examined showed that the measurement model exhibited sufficient reliability, discriminant validity and convergent validity. Assessment of the Structural model shows that 61.8% of the variation in Entrepreneurial Intention is explained by our model ($R^2 = 0.618$). The implications of the study findings are discussed in the paper.

Keywords: Entrepreneurial intention; students; PL-SEM.

**Corresponding author: E-mail: lonawud@yahoo.com;*
E-mail: kwameetornam.kunu@hopoly.edu.gh;

1. INTRODUCTION

Tertiary education in general prepares an individual for self-reliance because it provides learners with skills necessary for self-employment, [1]. However, according to [2] tertiary programs in higher education focused on supplying companies, and related businesses with a source of professionally trained employees and potential managers. Hence, oversupply of graduate manpower creates unemployment growth in the country, and lack of positive feedback to the efforts made to find a solution for the unemployment problem of graduates for the Ghanaian youth have created an important ground for paying more attention to entrepreneurship. However, [3] noted that academic qualifications can no longer secure immediate employment upon graduation, thus requiring graduates to demonstrate a positive attitude towards the changing job market. The promotion of youth employment has been one of the main priority areas of the Government of Ghana. Nonetheless, in spite of all the efforts being made, tertiary institutions keep churning out graduates whiles new job openings are still the same or barely move up.

According to [4] entrepreneurship has been recognized as a solution to the high rate of unemployment. In his view, [5] is of the opinion that entrepreneurship is a crucial driver for economic well-being with most policy makers recognizing the critical role it plays towards national development. Entrepreneurs create jobs, drive and shape innovation, introduce new competition and contribute to overall economic growth. [6] on the other hand allude that careers in entrepreneurship will provide young graduates with the opportunity to become financially independent while at the same time contributing to job creation, innovation, and economic growth. Thus, given the persistent unemployment problem among graduates in Ghana, it is important for us to understand factors that influence entrepreneurship intentions among Technical University Students.

2. LITERATURE REVIEW

2.1 The Concept of Entrepreneurial Intention

Various researchers such as [7] defined entrepreneurial intention as the willingness of individuals to perform entrepreneurial behavior, to engage in entrepreneurial action, to be self-employed, or to establish new business. It usually involves inner guts, ambition and the feeling to stand on one's feet [8]. An individual may have potential to be an entrepreneur but will not make any transition into entrepreneurship unless they have such intentions [9]. Entrepreneurial intention is thus the degree of commitment directed towards the performance of the entrepreneurial endeavor of putting up a business for self-employment [10]. According to [11], entrepreneurial intention is a self-knowledge conviction by a person who intends to set up a new business venture and consciously plans to do so at some point in the future. For purpose of this study, entrepreneurial intention is defined as the willingness to become self-employed as opposed to organizational employment.

2.2 Theory of Planned Behavior

The Theory of Planned Behaviour (TPB) predicts an individual's intention to engage in a behaviour at a specific time and place. It posits that individual behaviour is driven by behaviour intentions, where behaviour intentions are a function of three determinants: an individual's attitude toward behaviour, subjective norms, and perceived behavioural control [12].

2.2.1 Behavioural intentions

This is a proxy measure of behavior. It represents a person's motivation in the sense of her or his conscious plan or decision to perform certain behaviour [13]. Generally, the strong the intention is, the more likely the behavior will be performed.

2.2.2 Attitude towards behaviour

This refers to the degree to which a person has positive or negative feelings of the behavior of interest. It entails a consideration of the outcomes of performing the behavior.

2.2.3 Subjective norm

This refers to the belief about whether significant others think he or she will perform the behaviour. It relates to a person's perception of the social environment surrounding the behaviour.

2.2.4 Perceived behavioural control

This refers to the individual's perception of the extent to which performance of the behaviour is

easy or difficult [12]. It increases when individuals perceive they have more resources and confidence [14,15].

2.3 Risk Propensity – Conceptual Status

The literature concerning risk propensity has two main themes. The first theme relates to prospect theory [16], which proposes that risk taking is asymmetric about a reference point, and that people will be risk averse when they perceive themselves to be in the domain of gain, and risk seeking in the domain of loss. Prospect theory has stimulated numerous research studies into risk preferences and risk taking. A key premise of the theory is that individual level risk taking is relatively inconsistent across situations – a person will take risk in some circumstances, and avoid risk in other circumstances. The prompt for behavioral change could be as simple as the semantic presentation of data, for example whether a choice outcome is presented as a loss or a gain.

A second theme in the research considers the individual difference factors that could influence risk taking. A significant contribution to this research is the notion that risk taking could be linked to factors that are trans-situational, such as personality – risk propensity could thus be more a characteristic of an individual than their situation. In this area, sensation seeking has been found to be particularly important. Zuckerman pioneered the study of this concept [17], and since then a stream of research has confirmed its importance as a highly consistent predictor of various kinds of risk taking, including compulsive gambling and participation in high risk activities [18,19]. This construct has also been the subject of extensive psycho physiological investigation, linking it clearly with individual differences in cortical arousal thresholds and levels of enzymes and neurotransmitters affecting the central nervous system [20]. Substantial heritability of the trait may also be inferred from evidence for the genetic origins of dopamine receptor levels linked with venturesome personality [21,22].

An alternative but related approach in the risk literature has been to consider risk propensity in terms of the variance in within-individual measures of risk. An example of this work is [23], with other studies adopting the same approach in more recent research [e.g. 24]. These empirical works focus attention on the inter-correlation of scores on a range of measures of risk taking in different decision areas. Findings have typically shown correlations between different measures of risk to be weak. However, research on managerial decision making by [25], showed that this pattern of results does not preclude the possibility of strong intra-individual relationships between different measures of risk taking for some proportion of the population. They found that a small number of people showed consistent responses on different measures of risk taking, and could be classified by the authors as consistent risk seekers, or consistent risk averters.

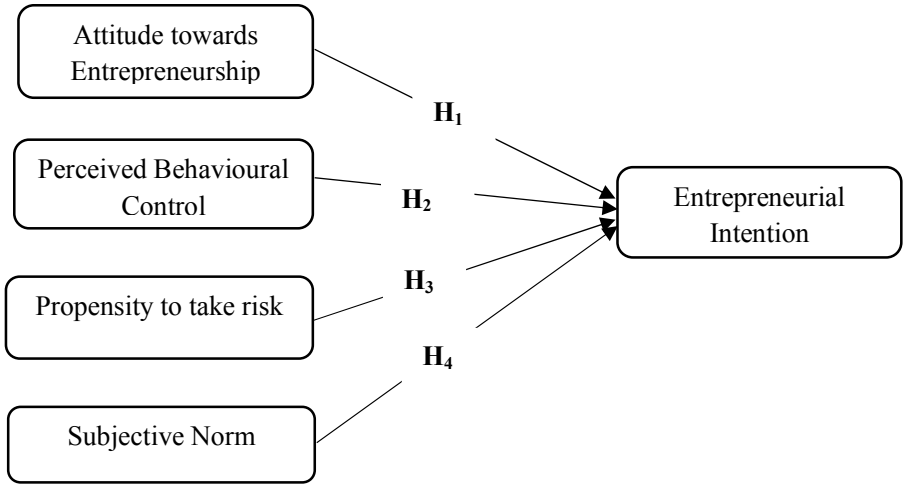

Fig. 1. Research model

A similar conclusion was reached in the work of [26] who showed that underlying risk preferences tend to remain stable across situations for a significant portion of their sample. A number of theories and empirical studies on risk propensity have been published, the most sophisticated of which in literature has been the model set out by [27]. In this model, it was suggested that the two key inputs to risk taking are risk perception and risk propensity, where risk propensity is conceptualized as a confluence of dispositional tendencies, cognitive inputs and past experience.

3. METHODOLOGY

The research model included five latent variables, each of which is measured with multiple items. In order to improve content validity, these items were adapted from the literature. Entrepreneurial Intention, Attitude Towards Entrepreneurship and Perceived Behavioural Control were measured using items derived from [28] while the three items used to measure Propensity to Take Risk was derived from [29]. Subjective Norm was also measured using derived from [30] and [31]. The items were reworded to reflect the context of entrepreneurial intention in tertiary education context and the study environment. All measurement items are presented and measured using a 5-point Likert scale anchored between 1 (Strongly Disagree) and 5 (Strongly Agree). Our measurement instrument had 19 items in total. To ensure the quality of the survey questions, experienced professionals and researchers with expertise on the subject matter first reviewed the questionnaire to ensure that it was 'respondent friendly'. With their comments, the researcher revised the questions to improve comprehensibility (unambiguousness). The researcher then conducted a pilot study with 40 students with all constructs showing satisfactory levels of reliability and validity. Results from an exploratory factor analysis suggested that the instrument had good validity.

Survey data were collected using paper-based questionnaires. A total of 420 questionnaires were distributed of which 356 were returned, resulting in a return rate of 84, 76%. However, 31 questionnaires were discarded due to a significant number of missing fields. Data were analyzed using the partial least square (PLS) approach to structural equation modeling (SEM) on Smart PLS 3. Following the two-step approach for evaluating structural equation models recommended by [32], the researcher first examined the measurement model to evaluate the instrument's reliability and validity properties. This was followed up with examining the structural model to test research hypotheses proposed in this study. PLS parameters were estimated using a re-sampling approach (i.e. bootstrap or jackknife) since it lacks the classical parametric inferential framework [33]. In addition, it is less restrictive on residual distribution restrictions (multivariate normality assumptions) than are found in other analysis models [34].

4. RESULTS

A total of 356 individual customers completed the questionnaire on the factors influencing consumer satisfaction towards loyalty. Table 1 summarizes the socio-demographic information of the respondents.

Table 1. Demographic information of the participants (n=356)

Variables	Frequency	Percentage
Gender		
Male	209	58.7
Female	147	41.3
Age		
18-25	198	55.6
26-35	127	35.7
36-45	31	8.7

Source: Field Data, 2016

From the Table 1, 209 respondents which represent 58.7% were males and 147 of them which represent 41.3% were female. The analysis further indicated that 55.6% of the respondents were between the ages of 18 to 25 years; 35.7% were between 26 to 35 years, and finally, the rest 8.7% of them were between 36 to 45 years.

Results for the measurement model is presented in Tables 2 and 3. The measurement model is assessed based on reliability, convergent validity and discriminant validity. Reliability was assessed using Cronbach's alpha and composite reliability. For constructs to be reliable, both Cronbach's alpha and composite reliability values for the constructs must be above 0.7 [35]. From Table 2 it is evident that all construct had Cronbach's alpha and Composite Reliabilities greater than 0.7, indicative of construct reliability.

Table 2. Factor loadings and cross loadings

		ATT	PBC	PR	SN	EI	CA	CR	AVE
Attitude towards entrepreneurship	ATT1	**0.783**	0.43	0.45	0.30	0.53	**0.928**	**0.946**	**0.779**
	ATT2	**0.889**	0.56	0.46	0.30	0.59			
	ATT3	**0.931**	0.54	0.43	0.35	0.60			
	ATT4	**0.926**	0.58	0.43	0.37	0.61			
	ATT5	**0.878**	0.54	0.40	0.39	0.59			
Perceived behavioural control	PBC1	0.530	**0.84**	0.46	0.22	0.66	**0.907**	**0.930**	**0.728**
	PBC2	0.584	**0.87**	0.52	0.17	0.61			
	PBC3	0.481	**0.87**	0.46	0.20	0.58			
	PBC4	0.482	**0.87**	0.42	0.17	0.57			
	PBC5	0.471	**0.83**	0.42	0.22	0.59			
Propensity to take risk	PR1	0.497	0.51	**0.87**	0.26	0.56	**0.776**	**0.869**	**0.689**
	PR2	0.349	0.42	**0.81**	0.32	0.43			
	PR3	0.357	0.40	**0.80**	0.30	0.42			
Social norms	SN1	0.366	0.21	0.33	**0.89**	0.32	**0.893**	**0.934**	**0.824**
	SN2	0.384	0.25	0.34	**0.95**	0.35			
	SN3	0.304	0.18	0.29	**0.89**	0.31			
Entrepreneurial intention	EI1	0.635	0.67	0.54	0.32	**0.92**	**0.915**	**0.946**	**0.855**
	EI2	0.617	0.66	0.52	0.34	**0.93**			
	EI3	0.578	0.62	0.52	0.34	**0.93**			

CA-Cronbach's Alpha, CR-Composite Reliability, AVE-Average Variance Extracted ATT- Attitude Toward Entrepreneurship, PBC- SN-Social Norm, PR-Propensity to Take Risk, EI- .Entrepreneurial Intention

Convergent validity and discriminant validity was also used to assess the validity of constructs. Convergent validity assesses the ability of indicator items to converge or load together on their respective constructs. Convergent validity is assessed with average variance extracted (AVE) measure and factor loadings of items. For a construct to exhibit sufficient levels of convergent validity, the AVE should be greater than 0.5 [36,37]. Also factor loadings for the construct must be greater than 0.7 [36,37]. From Table 2, it can be seen that AVE for each construct is above 0.5 and the factor loading for each construct is above 0.7. This indicates that our measurement model exhibits convergent validity.

Table 3. Fornell-larcker criterion

	ATT	PBC	PR	SN	EI
ATT	**0.883**				
PBC	0.599	**0.853**			
PR	0.492	0.536	**0.830**		
SN	0.388	0.232	0.349	**0.908**	
EI	0.660	0.706	0.570	0.360	**0.924**

**Square roots of average variances extracted (AVEs) shown on diagonal*

Discriminant validity, on the other hand, is the degree to which a construct is uniquely and distinctively different from other constructs in the model. To assess discriminant validity, the following guideline was followed:

1) The Fornell-Larker criterion; which states that the Average Variance Extracted (AVE) of each latent construct should be greater than the highest squared correlations between any other construct [38].
2) The loadings of each indicator should be greater than all its cross loadings [32,39,37].

From Table 3 it can be observed that the square root of the AVE for all constructs are greater than correlation with other constructs indicating sufficient discriminant validity. Again from Table 2 it can be seen that the factor loadings for each construct are greater than all its cross-loadings further providing support for discriminant validity.

4.1 Structural Model Assessment

[36] opined that structural model determines whether the structural relations in the model tested are meaningful. Once the psychometric properties of the measurement model were met, we examined the structural model based on the sign, magnitude and significance of path coefficients of each path. In order to determine the significance of each estimated path, a standard bootstrapping procedure was used with 5000 re-samples drawn with replacement from the initial sample of 356 samples. We also assessed the quality of the structural model using the coefficient of determination (R^2) and standardized root mean square residual (SRMR) composite factor model [40].

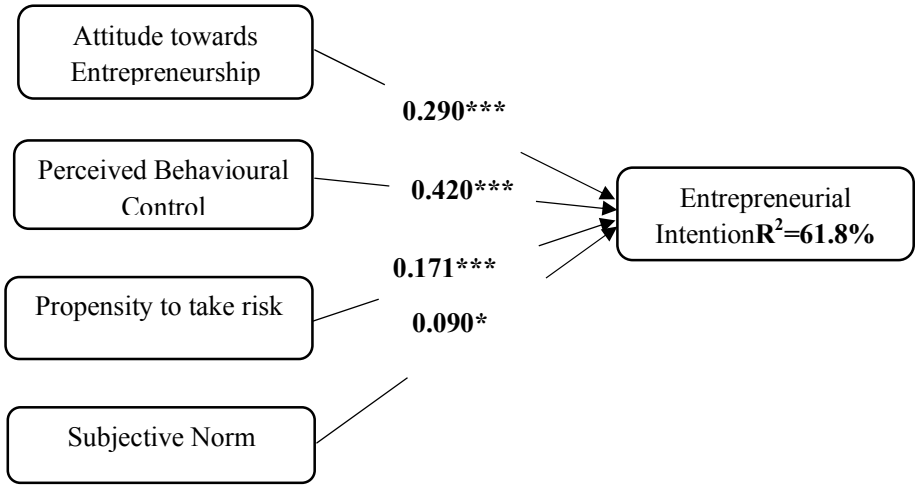

Fig. 2. PLS results for structural model
**** significant at p=0.001 ** significant at p=0.01 *significant at p=0.05*

Table 4. Results for hypotheses testing

Hypothesis	Hypothesized path	Path coefficients	T statistics	P values	Result
H_1	**ATT → EI**	0.290	3.83	0.000***	Supported
H_2	**PBC → EI**	0.420	6.88	0.000***	Supported
H_3	**PR → EI**	0.171	3.203	0.001***	Supported
H_4	**SN → EI**	0.090	2.273	0.023*	Supported

**** significant at p=0.001 ** significant at p=0.01 *significant at p=0.05*

Results for the structural model assessment are presented in Table 4 and Fig. 2.

Attitude towards Entrepreneurship was found to be a significant predictor of Entrepreneurial Intention (β=0.290, P=0.000) providing support for H_1. In support of H_3 and H_4, Propensity to take risk (β=0.171, p=0.001) and Subjective Norms (β=0.09, p=0.023) respectively were also found to be significant predictors Entrepreneurial Intention. With Subjective Norms having the least effect on Entrepreneurial Intention. Perceived behavioural control was found to have the greatest influence on Entrepreneurial intention (β= 0.420, P= 0.000). All together the four variable accounted for 61.8% of the variance in Entrepreneurial Intention.

5. CONCLUSION AND IMPLICATIONS

In this study, the relationships between attitude towards entrepreneurship; perceived behavioural control; propensity to take risk and subjective norms on entrepreneurial intentions among students of Ho Technical University in Ghana were explored. Four relationships were hypothesized and tested with PLS–SEM in which all four paths hypothesized were supported.

Consistent with research by [41] which indicated that attitude toward entrepreneurship, subjective norms and perceived behavioral control variables play significant roles in influence the students' entrepreneurial intentions, this study also shows that entrepreneurial intentions are influenced by their evaluations of these variables. This results also support studies in the literature that establish the significant relationship between students' entrepreneurial intentions and the antecedents of the theory of planned behaviour [42]. However, [43] investigated the entrepreneurial intentions of student and found that the two most important variables to explain entrepreneurial intentions were entrepreneurial alertness and the importance attached to financial security.

From a practical perspective, the results imply that educational policy makers and administrators need to consider this entrepreneurship intention model in order to come up with initiatives that will affect business formations. Further, in order to fast-track entrepreneurship development through learning, improved designs of teaching entrepreneurship can be developed to increase self-efficacy

perceptions and reduce deficits in perceived feasibility and desirability.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Sabbi M, Amankwah JS, Boateng JD. Education for self-reliance in Ghana: Rethinking the quality of pre-tertiary education. Educational Research Network for West and Central Africa; 2009.
2. Bawakyillenuo S, Osei Akoto I, Ahiadeke C, Aryeetey E, Agbe E. Tertiary education and industrial development in Ghana. Policy Brief, 33012; 2013.
3. Morshidi EM, Bakar R, Lim HE, Mohammed NK. Study of academic achievement and employability of graduates in higher education institutions. University of Malaysia: Higher Education Research Institute; 2004.
4. Neneh BN. An assessment of entrepreneurial intention among university students in Cameroon. Mediterranean Journal of Social Science. 2014;5(20):542.
5. Mungai EN. Socio-cultural factors and entreprenuerial intentions of undergraduate students in Public Universities in Kenya. Nairobi: University of Nairobi; 2013.
6. Ekore JO, Okekeocha OC. Fear of entrepreneurship among university graduates: A psychological analysis. International Journal of Management. 2012;29(2):515.
7. Dohse D, Walter SG. Knowledge context and entrepreneurial intentions among students. Small Business Economics. 2012;39(4):877-895.
8. Zain ZM, Akram AM, Ghani EK. Entrepreneurship intention among malaysian business students/l'esprit d'entreprise chez les etudiants en commerce Malaisiens. Canadian Social Science. 2010;6(3):34.
9. Ismail M, Khalid SA, Othman M, Jusoff HK, Rahman NA, Kassim KM, et al. Entrepreneurial intention among Malaysian undergraduates. International Journal of Business and Management. 2009;4(10): 54.
10. Krueger N. The impact of prior entrepreneurial exposure on perceptions of new venture feasibility and desirability. Entrepreneurship: Theory and Practice. 1993;18(1):5-22.
11. Thompson ER. Individual entrepreneurial intent: Construct clarification and development of an internationally reliable metric. Entrepreneurship Theory and Practice. 2009;33(3):669-694.
12. Ajzen I. The theory of planned behavior. Organizational Behavior and Human Decision Processes. 1991;50(2):179-211.
13. Conner M, Armitage CJ. Extending the theory of planned behavior: A review and avenues for further research. Journal of Applied Social Psychology. 1998;28(15): 1429-1464.
14. Hartwick J, Barki H. Explaining the role of user participation in information system use. Management Science. 1994;40(4): 440-465.
15. Lee Y, Kozar KA. An empirical investigation of anti-spyware software adoption: A multitheoretical perspective. Information & Management. 2008;45(2): 109-119.
16. Tversky A, Kahneman D. Advances in prospect theory: Cumulative representation of uncertainty. Journal of Risk and Uncertainty. 1992;5(4):297-323.
17. Zuckerman M, Kolin EA, Price L, Zoob I. Development of a sensation-seeking scale. Journal of Consulting Psychology. 1964; 28(6):477.
18. Zuckerman M. The sensation seeking motive. Progress in Experimental Personality Research. 1974;7:79-148.
19. Zuckerman M, Kuhlman DM. Personality and risk-taking: Common bisocial factors. Journal of Personality. 2000;68(6): 999-1029.
20. Geen RG. Psychophysiological approaches to personality. In Handbook of Personality Psychology. 1997;387-414.
21. Cloninger SC. Personality: Description, dynamics, and development. WH Freeman/Times Books/Henry Holt & Co; 1996.
22. Farde L, Gustavsson JP, Jönsson E. D2 dopamine receptors and personality traits. Nature. 1997;385(6617):590.
23. Weinstein E, Martin J. Generality of willingness to take risks. Psychological Reports. 1969;24(2):499-501.
24. Salminen S, Heiskanen M. Correlations between traffic, occupational, sports, and

home accidents. Accident Analysis & Prevention. 1997;29(1):33-36.

25. MacCrimmon KR, Wehrung DA. Assessing risk propensity. In recent developments in the foundations of utility and risk theory. Springer, Dordrecht. 1986;291-309.
26. Weber EU, Milliman RA. Perceived risk attitudes: Relating risk perception to risky choice. Management Science. 1997;43(2): 123-144.
27. Sitkin SB, Pablo AL. Reconceptualizing the determinants of risk behavior. Academy of Management Review. 1992;17(1):9-38.
28. Liñán F, Chen YW. Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions. Entrepreneurship Theory and Practice. 2009;33(3):593-617.
29. Dinis A, do Paco A, Ferreira J, Raposo M, Gouveia Rodrigues R. Psychological characteristics and entrepreneurial intentions among secondary students. Education+ Training. 2013;55(8-9): 763-780.
30. Kolvereid L, Isaksen E. New business start-up and subsequent entry into self-employment. Journal of Business Venturing. 2006;21(6):866-885.
31. Maes J, Leroy H, Sels L. Gender differences in entrepreneurial intentions: A TPB multi-group analysis at factor and indicator level. European Management Journal. 2014; 32(5):784-794.
32. Chin WW. The partial least squares approach to structural equation modeling. Modern Methods for Business Research. (1998);295(2):295-336.
33. Wold H. Soft modelling: The basic design and some extensions. Systems Under Indirect Observation Part II. 1982;36-37.
34. Chin WW, Marcolin BL, Newsted PR. A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study. Information Systems Research. 2003;14(2):189-217.
35. Hair F, Jr J, Sarstedt M, Hopkins L, Kuppelwieser GV. Partial least squares structural equation modeling (PLS-SEM) An emerging tool in business research. European Business Review. 2014;26(2): 106-121.
36. Sarstedt M, Ringle CM, Henseler J, Hair JF. On the emancipation of PLS-SEM: A commentary on Rigdon (2012). Long Range Planning. 2014;47(3):154-160.
37. Henseler J, Ringle CM, Sinkovics RR. The use of partial least squares path modeling in international marketing. In New challenges to international marketing. Emerald Group Publishing Limited. 2009; 277-319.
38. Fornell C, Larcker DF. Structural equation models with unobservable variables and measurement error: Algebra and statistics. Journal of Marketing Research. 1981; 382-388.
39. Götz O, Liehr-Gobbers K, Krafft M. Evaluation of structural equation models using the partial least squares (PLS) approach. In Handbook of partial least squares. Springer Berlin Heidelberg; 2010.
40. Henseler J, Dijkstra TK, Sarstedt M, Ringle CM, Diamantopoulos A, Straub DW, et al. Common beliefs and reality about PLS comments on Rönkkö and Evermann (2013). Organizational Research Methods. 2014;17(2):182–209.
41. Kolvereid L, Tkachev A. Self- employment intention among Russian students. Entrepreneurship & Regional Development. 1999;11(3):269-280.
42. Gird A, Bagraim JJ. The theory of planned behaviour as predictor of entrepreneurial intent amongst final-year university students. South African Journal of Psychology. 2008;38(4):711-724.
43. Van Gelderen MB, Bodewes W, Poutsma E, Van Gils A. Explaining entrepreneurial intentions by means of the theory of planned behaviour. Career Development International. 2008;13(6):538-559.

Peer-review history:
The peer review history for this paper can be accessed here:
http://www.sciencedomain.org/review-history/24210