



Role of Self-Directed Learning Readiness in Developing Entrepreneurial Behaviors

Busige Nishantha^{1*} and Muthuthanthrige Sahan Jayamal Fernando¹

¹Department of Management and Organization Studies, Faculty of Management and Finance, University of Colombo, Sri Lanka.

Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

Article Information

DOI: 10.9734/AJEBA/2020/v16i430246

Editor(s):

(1) Dr. Satinder Bhatia, Indian Institute of Foreign Trade, India.

Reviewers:

(1) Muhamad Saufi Che Rusuli, Universiti Malaysia Kelantan, Malaysia.

(2) Geneveva, President University, Indonesia.

Complete Peer review History: <http://www.sdiarticle4.com/review-history/59604>

Original Research Article

Received 25 May 2020
Accepted 30 July 2020
Published 08 August 2020

ABSTRACT

Aims: The purpose of this paper is to investigate the role of self-directed learning readiness on developing entrepreneurial behaviors through social learning in the context of entrepreneurship education programs offered by state sector universities of Sri Lanka.

Study Design: Correlational research design.

Place and Duration of the Study: University of Colombo, University of Sri Jayewardenepura and University of Moratuwa during August 2018 to March 2019.

Methodology: Collected primary data from the participants of entrepreneurship education programs conducted by three major state sector universities in Sri Lanka to reveal their level of self-directed learning readiness, availability of social learning opportunities in the programs and consequent development in their entrepreneurial behaviors after enrolling the programs. Stratified random sampling is used in selecting respondents for the sample of this quantitative study and self-administered questionnaires are used as the method of data collection. SPSS is used to carry out different kinds of statistical analysis such as Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity, factor analysis, descriptive statistics, correlation and hierarchical regression analysis.

Results: The results show that self-directed learning readiness moderates the positive association of the development in entrepreneurial behaviors and social learning in the context of

*Corresponding author: E-mail: nishantha@mos.cmb.ac.lk;

entrepreneurship education. Further, the paper provides an important analysis of the state of entrepreneurship education in Sri Lanka to enable further research to be taken in the area of entrepreneurship education. The findings provide valuable insight on sustaining the unique pedagogy of entrepreneurship education by restructuring the selection process to assess the level of self-directed learning readiness of applicants.

Conclusion: The paper affirms the framework of Bandura to provide a basis to improve the effectiveness of entrepreneurship education in Sri Lanka. However, the paper only concerns students' perceptions towards the tripartite relationship between self-directed learning readiness, social learning and development of entrepreneurial behaviors

Keywords: Entrepreneurship education; self-directed learning readiness; social learning; entrepreneurial behaviors; Sri Lanka.

1. INTRODUCTION

Development of entrepreneurship is inevitably critical for economic growth [1] especially to an emerging economy like Sri Lanka [2]. Lack of entrepreneurship is a root cause for the prolonged stagnation of Sri Lanka's economy in the developing state since the independence from the western monarchy. For an example, the business ownership rate of Sri Lanka is around 3% (Central Bank of Sri Lanka, [3]) whereas countries with a similar level of population like Australia, Chile and Taiwan etc. have been able to record a rate in between 9% - 12% (Global Entrepreneurship Monitor, [4]). According to Gamage [5], deficiency in managerial competencies is a fundamental reason for the dearth of entrepreneurship in the country. Further, Gnyawali and Fogel [6] also agree upon a similar argument stating that entrepreneurial and business skills are necessary for the development of entrepreneurship.

According to Teague and Gartner [7], perceiving entrepreneurship from a behavioral perspective is relatively important than the trait perspective as the outcome of behavioral perspective is directed as successful formation of an organization. Bandura [8] suggests that a behavior is as a result of its tripartite relationship with the individual and the environment. Thus, the development of entrepreneurial behaviors is also affected by the individual's characteristics and the environmental stimulus. Scholars have identified that social learning as an environmental stimuli influences the development of entrepreneurship [9,10,11,12]. Further, scholars have recognized that self-directed learning readiness is a salient characteristic among successful entrepreneurs [13,14,15] and also a critical success factor in determining the effectiveness of adult education [16,17]. However, there seems no attempt to investigate

the tripartite relationship between development of entrepreneurial behaviors, social learning and self-directed learning readiness as per the model suggested by Bandura [8].

Therefore, this study investigates the role of self-directed learning readiness on developing entrepreneurial behaviors through social learning in the context of entrepreneurship education programs offered by state sector universities of Sri Lanka to accomplish the following objectives.

1. To examine the level of moderating effect by the level of self-directed learning readiness of the course participants on the relationship between social learning and development of entrepreneurial behaviors in entrepreneurship education offered by state sector universities of Sri Lanka.
2. To understand the working of Bandura's social learning theory within a local context dealing with a globally driven discourse.

Hence, the paper is structured as follows. The first section explains the background of the study. The second section contains a brief description of a rigorous review of literature pertinent to the study. The third section discusses the research design of this quantitative study. The fourth section presents the results of the data analysis, discussion of the findings and their implications while the final section contains the conclusion and directions for further research.

2. REVIEW OF LITERATURE

2.1 Entrepreneurial Behaviors

Entrepreneurship can be emerged either through creation or discovery [18]. Despite of inherent entrepreneurial characteristics, it is the entrepreneurial behaviors that matters when it

comes to the formation of an organization which is the final outcome of entrepreneurship (Gartner, 1988 as cited in Williams-Middleton, [11]; Teague and Gartner, [7]). According to Gartner and Carter [19], intention, boundary and exchange are the three properties of entrepreneurial behaviors. Liao and Welsch [20] have listed 18 entrepreneurial behaviors under three scopes such as planning activities, establishing legitimacy and market behavior which are in congruent with those three properties outlined by Gartner and Carter [19]. However, no one has specified a particular behavior to contemplate on forming an organization and as stated by Gartner and Carter [19], an organization has three diverse birthdays in its process of forming the business. Since, behavior is not an independent variable, the environmental stimulus and the individual attributes are key to the development of any behavior including entrepreneurial [8,11].

2.2 Entrepreneurship Education

The impact of education on the development of entrepreneurship seemed to be vital in both global and the local context [6,5]. According to Drucker [21] and Kuratko [1], developing entrepreneurship can be facilitated through entrepreneurship education which predominantly ponders on a scope of business administration (Zeithaml and Rice, 1987, as cited in Kuratko, [1]). Thus, entrepreneurship education can be viewed as an effective mean in accomplishing an entrepreneurship development. However, it requires a structured as well as an unstructured component in pedagogy to facilitate effective transformation of formal knowledge and entrepreneurial know-how [22]. In addition, Valerio, Parton and Robb [23] identify that an effective entrepreneurship education program must comprises of traditional classroom sessions and wrap around activities that promote mentoring, collaboration and network opportunities for the learners who are either practicing or potential entrepreneurs. Though, the higher education sector of Sri Lanka generally offers courses with an archaic methodology [24], the entrepreneurship education programs offered by three out of the four state sector universities in the country are contemplating on a pedagogy which is similar to the recommendation of Ronstadt [22].

Thus, the entrepreneurship education programs in the country seems to be promoting social learning that allow the learners to interact with each other and also with the course facilitators in

order to learn among and from others. According to Fernando and Nishantha [12], social learning exists in entrepreneurship education programs offered by state sector universities in Sri Lanka and it positively influences in developing the entrepreneurial behaviors of the students in entrepreneurship education programs. On clarifying social learning in general, Bandura [25] states that people either endorse or inhibit certain behaviors after witnessing or being aware about the consequences of executing such behaviors not directly by them rather by their social agents that they interact in their surroundings. Since, entrepreneurs are operating in a highly uncertain business environment, developing their behaviors by modelling the behaviors of their social agents or following the social norms would be more cost-effective rather than experiential learning i.e. learning from the direct experiences [11].

2.3 Role of Self-directed Learning in Entrepreneurship Education

According to Bandura [8], individual is also an important predictor of a particular behavior. Since, knowledge is constructed both socially and personally, any learner who has a higher level of self-directed learning readiness shall utilize multiple sources available including learning from and among others to sharpen his/her knowledge, skills and attitudes [22,11]. Further, Taylor [17] states that the learning process should be owned and controlled by learners rather than by the teachers for a successful adult education. Therefore, the level of self-directed learning readiness is critical for successful entrepreneurship education. According to Garrison [26], self-directed learning gives control and responsibility of learning to the learner and due to the emerging need for lifelong learning and network learning, the learners are ready to accept such responsibility. According to Fisher and King [27], self-directed learning encompasses three pillars namely self-management, self-control and desire for learning. Generally, entrepreneurs have a higher level of self-directed learning readiness [14,13] and thus, they tend to use other means of acquiring knowledge like social and/or observational learning in developing their entrepreneurial behaviors through entrepreneurship education.

3. METHODOLOGY

According to the review of literature, social learning in entrepreneurship education acts as

the independent variable of this study while development of entrepreneurial behaviors represents the dependent variable. The direct relationship between the two variables is expected to be moderated by the level of self-directed learning readiness of course participants in entrepreneurship education. The students of entrepreneurship education programs conducted by three major state sector universities of the country represents the populations of this study. At the time of data collection, 354 participants were following the entrepreneurship education courses conducted by these three universities. Hence, a sample size of 185 was determined for a population of 354 at 95% confidence with a 5% margin of error based on the criteria given by Krejcie and Morgan [28] in selecting a sample from a finite population. Stratified random sampling technique was used based on the university to make sure the representation of population in the sample as the students were from different universities.

Primary data were collected by using self-administered questionnaires. The questionnaire comprised of four sections. The first section included the questions pertaining to the demography of the respondents such as gender, age, educational background and entrepreneurial experience etc. The second section contained the questions which were initially developed by Liao and Welsch [20] and are modified by the researchers to measure the development of real or intended entrepreneurial behaviors since the entrepreneurship education programs are offered for both real and probable entrepreneurs. The third section encompassed the questions which were initially developed by Yi and Davis [29] and are modified by the researcher to match the environment of entrepreneurship education. The fourth section comprised the self-directed learning readiness scale established by Fisher and King [27]. Except the items of the first section, all the other items were measured on a five point Likert-scale in which the level 1 stands for "strongly disagree" and the level 5 stands for "strongly agree". The questionnaire is translated into Sinhala medium to ensure the clarity for the respondents since a larger majority of the respondents are from a non-English speaking background and even some courses are offered in Sinhala medium. However, the questionnaire distributed to the respondents is in both languages. This data collection approach helped the researcher to gather data within a shorter period of time at a higher response rate particularly in the off line method while clarifying

the doubts on the spot. The study recorded an overall response rate of 78% which is way above the norm.

Different kinds of statistical analysis such as Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity, factor analysis, descriptive statistics, correlation and hierarchical regression analysis were carried out using the Statistical Package for the Social Science (SPSS). Exploratory factor analysis with principal components was conducted to identify viable factor structures of entrepreneurial behaviors, social learning and self-directed learning readiness. The number of factors retained were determined using the following criteria: (1) Kaiser's rule of retaining factors with eigenvalues greater than 1, (2) at least 5% increase in the total variance explained by an addition of one factor, (3) each factor had to have at least three items and (4) each item had to have a loading of at least .40 on that factor. The factors that were identified were named on the basis of their content.

4. RESULTS AND DISCUSSION

67.6% of the respondents are males. A clear majority of males indicates a contrasting difference between traditional higher education courses and entrepreneurship education in Sri Lanka. The mean age of 31.66 years indicates a passion and a desire among the youth in the country for entrepreneurship. 78.4% of the respondents have pursued either vocational or tertiary courses. Though the average experience as an entrepreneur is 4.38 years, 39.5% of the respondents don't have any entrepreneurial experience and they can be classified as potential entrepreneurs.

4.1 Validity and Reliability of the Scales

An exploratory factor analysis with principal components was conducted to identify a viable factor structure of the 18 items initially introduced by Liao and Welsch [20]. Three factors with Eigenvalues greater than one were extracted. These accounted for 57.8% of the variance. The factor loadings and percentages of variance explained after varimax rotation are shown in Table 1. Variables loaded on the first factor seemed to be concerned with the respondents' actual and intentional behaviors toward establishing the legal boundaries of the firm. Variables loaded on factor 2 seemed to be concerned with the respondents' actual and intentional behaviors toward planning the

Table 1. Results of exploratory factor analysis for entrepreneurial behaviors

Variables	Factor Loadings		
	Factor 1	Factor 2	Factor 3
Adhering to taxes on social security	0.901	0.047	0.131
Complying with indirect taxes	0.846	0.095	0.184
Dealing with income tax	0.797	0.112	0.227
Listing business in commercial documents	0.704	0.221	0.216
Installing separate phone lines for business	0.595	0.207	0.383
Opening bank accounts for business	0.573	0.277	0.210
Listing business in funding platforms/stock exchanges	0.493	0.238	-0.013
Developing business blue prints	0.116	0.747	0.130
Spending time on conceptualizing business ideas	0.111	0.702	0.011
Forming teams for start-ups	0.096	0.672	0.170
Saving money to invest in businesses	0.124	0.629	0.182
Projecting financial statements	0.151	0.579	0.214
Enabling more time for business	0.243	0.575	0.132
Learning on entrepreneurship	0.150	0.551	0.178
Recognizing probable marketplaces	0.190	0.173	0.875
Establishing procedures	0.223	0.249	0.815
Progress marketing	0.251	0.262	0.812
Progress in sales and cash collection	0.181	0.171	0.759
Eigenvalue	6.772	2.023	1.610
Proportion of Variance Explained	37.621	11.237	8.945
Cumulative Variance Explained	37.621	48.858	57.803
Reliability Coefficient (Standardized Alpha)	0.870	0.792	0.894

formation of their organization. Thus, the first two factors were labeled as Establishing Legitimacy and Planning Activities respectively. The third factor relates to Market Behavior and comprised of 4 variables.

An exploratory factor analysis with principal components was conducted to identify a viable factor structure of the 16 items initially introduced by Yi and Davis [29]. Four factors with Eigenvalues greater than one were extracted. These accounted for 75.5% of the variance. The factor loadings and percentages of variance explained after varimax rotation are shown in Table 2. Variables loaded on the first factor seemed to be concerned with the respondents' motivation to engage in social learning process. Variables loaded on factor 2 seemed to be concerned with the rehearsing of entrepreneurial experiences shared by social agents in the classroom by the respondents in their real business environment. Variables loaded on the third factor seemed to be concerned with retaining the entrepreneurial experience shared by social agents in the classroom in the memory of the respondents. Variables loaded on factor 4 seemed to be concerned with the respondents' attention towards the sharing of entrepreneurial

experiences by social agents in the classroom. Thus, 4 factors were labeled as Motivational, Motoric Reproduction, Retention and Attentional respectively.

An exploratory factor analysis with principal components was conducted to identify a viable factor structure of the 40 items initially introduced by Fisher and King [27]. The communalities of items, "Logical", "Aware of own limitations", "Find out information on own" and "Having high beliefs in the abilities" fell substantially below the traditional accepted criteria of .40 for retained item value and therefore they were dropped from the scale. Three factors with Eigenvalues greater than one were extracted. These accounted for 52.4% of the variance. The factor loadings and percentages of variance explained after varimax rotation are shown in Table 3. Variables loaded on the first factor seemed to be concerned with the respondents' motivation for learning. Variables loaded on Factor 2 seemed to be concerned with the respondents' effort for managing his or her self. Thus, the first two factors were labeled as Desire for Learning and Self-management respectively. The third factor relates to Self-control and comprised with 11 variables.

Table 2. Results of exploratory factor analysis for social learning

Variables	Factor loadings			
	Factor 1	Factor 2	Factor 3	Factor 4
Displayed the worth of utilizing entrepreneurial behaviors shared by others	0.837	0.148	0.224	0.176
Improved the desire to exert entrepreneurial behaviors shared by others	0.812	0.205	0.195	0.226
Helped in observing the worth of entrepreneurial behaviors shared by others	0.806	0.229	0.198	0.131
Encouraged the usage of entrepreneurial behaviors shared by others	0.749	0.177	0.220	0.234
Gave the chance to replicate the shared entrepreneurial behaviors	0.295	0.842	0.104	0.109
Had sufficient rehearsal of the entrepreneurial behaviors shared by others	0.170	0.816	0.301	0.086
Precisely replicate the entrepreneurial behaviors shared by others	0.085	0.780	0.311	0.175
Assisted to exercise the shared entrepreneurial behaviors	0.541	0.647	0.078	0.184
Metaphorically handled others' stories on their entrepreneurial behaviors	0.249	0.186	0.826	0.210
Shortened the main facets of others' stories on their entrepreneurial behaviors	0.196	0.206	0.804	0.235
Psychologically imagined the entrepreneurial behaviors told by others	0.304	0.254	0.710	0.283
Psychologically trained the entrepreneurial behaviors told by others	0.187	0.469	0.605	0.229
Had consideration to others' stories on their entrepreneurial behaviors	0.130	0.117	0.062	0.811
Others' stories on their entrepreneurial behaviors seized my consideration	0.140	0.181	0.280	0.801
Focused on others' stories on their entrepreneurial behaviors	0.312	0.111	0.228	0.756
Fascinated by others' stories on their entrepreneurial behaviors	0.232	0.100	0.422	0.680
Eigenvalue	7.903	1.693	1.471	1.006
Proportion of Variance Explained	49.395	10.579	9.194	6.285
Cumulative Variance Explained	49.395	59.973	69.167	75.452
Reliability Coefficient (Standardized Alpha)	0.898	0.880	0.883	0.857

4.2 Descriptive Statistics and Correlation

Table 4 presents the mean, standard deviation and correlations of the variables incorporated in this research. All variables have recorded mean values greater than 3.5 and thus the respondents agree that they engage in social learning during entrepreneurship courses; possess a higher level of self-directed learning readiness and have a development in their entrepreneurial behaviors. In addition, the standard deviations of all variables are less than one and thus, there is a modest dispersion of the responses. Further, significant positive inter-correlations have recorded among all the variables indicating an increase in social learning opportunities in

entrepreneurship courses and an increase in the level of self-directed learning readiness of the participants of such courses are capable of resulting an increase in the development of participants' actual or intentional entrepreneurial behaviors. There is no multicollinearity issue in the data set as the correlation values are less than 0.8 and the variance inflation factor (VIF) values of all the independent variables were between 1 and 10.

4.3 Hypotheses Testing

Table 5 presents the results of the hierarchical multiple regression analysis which tested the hypothesis of the study. Social learning variables

and self-directed learning readiness variables were regressed on the three entrepreneurial behaviors and all three models were significant. Attentional ($\beta=.210$, $P=.05$) and motoric reproduction ($\beta=.402$, $P=.01$) have significant positive influences on establishing legitimacy while retention ($\beta=-.237$, $P=.05$) has a significant yet negative influence on establishing legitimacy. There is a significant positive influence by motoric reproduction ($\beta=.158$, $P=.10$) on planning activities and that relationship is significantly moderated by desire for learning ($\beta=.299$, $P=.01$)

aspect of self-directed learning readiness of the course participants. Attentional ($\beta=.270$, $P=.01$) and motoric reproduction ($\beta=.189$, $P=.05$) have significant positive influences on market behavior and those relationships are significantly moderated by desire for learning ($\beta=.196$, $P=.10$) aspect of self-directed learning readiness of the course participants. Although self-management and self-control variables moderate the relationship between social learning and development of entrepreneurial behaviors, those relationships are not significant.

Table 3. Results of exploratory factor analysis for self-directed learning readiness

Variables	Factor loadings		
	Factor 1	Factor 2	Factor 3
Enjoy learning new information	0.731	0.112	0.217
Hunger to learn new information	0.727	0.181	0.155
Confidence in self-ability to search out information	0.720	0.286	0.171
Open to new ideas	0.660	0.163	0.320
Enjoy a challenge	0.651	0.167	0.200
Need for reasoning	0.651	0.154	0.242
Enjoy studying	0.620	0.325	0.180
Learn from own mistakes	0.616	0.048	0.279
Having a need to learn	0.604	0.162	0.226
Evaluate own doing	0.597	0.161	0.222
Gather the facts before making a decision	0.569	0.269	0.388
Critically evaluate new ideas	0.563	0.249	0.178
Asking for assistance when required	0.479	0.143	0.177
Methodical	0.173	0.794	0.087
Systematic in self-learning	0.180	0.765	-0.062
Good in management skills	0.282	0.715	0.172
Set specific times for self-study	0.152	0.705	-0.097
Manage the time well	-0.020	0.701	0.174
Organized	0.118	0.663	0.278
Self-discipline	0.129	0.626	0.199
Prioritize work	0.221	0.598	0.276
Solve problems using a plan	0.414	0.594	0.125
Set strict time frames	0.120	0.593	0.287
Pursue self-learning	0.450	0.566	0.063
Plan own learning	0.439	0.504	0.164
Make own decisions	0.109	0.143	0.808
In control of the life	0.130	0.177	0.799
Responsible for own decisions/actions	0.272	0.053	0.766
Set own learning goals	0.379	0.076	0.630
Having high personal standards	0.340	0.243	0.588
Having high personal expectations	0.434	0.074	0.560
Responsible	0.453	0.076	0.535
Set own goals	0.482	0.174	0.528
Focus on a problem	0.387	0.184	0.527
Evaluate own performance	0.337	0.239	0.480
Set own criteria to evaluate own performance	0.345	0.349	0.477
Eigenvalue	13.596	3.333	1.925
Proportion of Variance Explained	37.767	9.259	5.347
Cumulative Variance Explained	37.767	47.025	52.372
Reliability Coefficient (Standardized Alpha)	0.912	0.907	0.906

Table 4. Mean, standard deviation and correlation of variables

Variables	Mean	SD	1	2	3	4	5	6	7	8	9
1. Establishing Legitimacy	3.529	0.801									
2. Planning Activities	4.132	0.558	0.461**								
3. Market Behavior	4.215	0.759	0.518**	0.483**							
4. Motivational	4.184	0.642	0.251**	0.325**	0.395**						
5. Motoric Reproduction	3.637	0.766	0.384**	0.313**	0.412**	0.570**					
6. Retention	3.892	0.725	0.211**	0.307**	0.466**	0.576**	0.613**				
7. Attentional	4.116	0.698	0.289**	0.293**	0.477**	0.526**	0.430**	0.616**			
8. Desire for Learning	4.273	0.526	0.257**	0.452**	0.411**	0.492**	0.339**	0.519**	0.402**		
9. Self-management	3.876	0.580	0.223**	0.338**	0.271**	0.443**	0.424**	0.408**	0.366**	0.586**	
10. Self-control	4.262	0.569	0.268**	0.380**	0.338**	0.373**	0.285**	0.406**	0.324**	0.727**	0.513**

** Correlation is significant at the 0.01 level (2-tailed)

Table 5. Results of hierarchical multiple regression analysis

Variables	Establishing legitimacy B	Planning activities B	Market behavior B
Motivational	-.035	.033	.019
Motoric Reproduction	.402**	.158***	.189*
Retention	-.237*	-.066	.086
Attentional	.210*	.089	.270**
Desire for Learning	.092	.299**	.196***
Self-management	-.043	.031	-.098
Self-control	.150	.088	.062
Overall R ²	0.211	0.245	0.329
Adjusted R ²	0.180	0.215	0.303
Change in R ²	0.032	0.099	0.032
F statistic	6.765**	8.200**	12.424**

***P = .10 ; **P = .01 ; *P = .05

Since all three models have significant F statistic, the hypothesis of the study is accepted. Therefore, a higher level of self-directed learning strengthens the positive association between social learning in entrepreneurship education and the development of entrepreneurial behaviors.

4.4 Discussion

Findings of the study reveal that self-directed learning readiness moderates the positive association of the development of entrepreneurial behaviors and social learning in entrepreneurship education. Hence, this affirms the tripartite relationship among behavior, individual and environment suggested by Bandura [8]. Further, this finding is in line with the arguments of Smith (2001) as cited in Tseng, [13] and Cormier-MacBurnie et al. [15]. According to Smith (2001), self-directed learning is key in making entrepreneurial learning effective (as cited in Tseng, [13]) and as per the study findings a higher level of self-directed learning strengthens the positive association between social learning in entrepreneurship education and the development of entrepreneurial behaviors. Further, according to Cormier-MacBurnie et al. [15] self-directed learning plays a major role in developing entrepreneurship in an educational context.

On the other hand, the individual beta values illustrate insignificant associations for certain relationships while the models are significant. It indicates that the self-directed learning readiness make a combined impact on the relationship between the development of entrepreneurial behaviors and the social learning rather than individual influences. This is in line with the argument of Garrison [26] in which he mentions that motivation (i.e. desire for learning) plays a pivotal role in influencing learner's control (i.e.

self-management) and responsibility (i.e. self-control) which indirectly emphasizes a combined effect rather than a solo impact when it's come to the determination of the possession of self-directed learning. However, desire for learning is still the critical component in self-directed learning as it has significant positive associations with planning activities and market behavior. It indicates that the motivation to endure the learning till the outcomes are achieved is vital in developing the entrepreneurial behaviors.

Theoretically, this study signifies that self-directed learners positively moderate their opportunities for social learning in entrepreneurship education in developing their entrepreneurial behaviors to form an organization. Practically, this study provides some implications for higher education institutes and entrepreneurs. Since, the possession of high level of self-directed learning readiness is critical for the effective use of unique pedagogy in entrepreneurship education, the assessment of participants' self-directed learning readiness shall ensure the execution of intended pedagogy. Hence, the higher education institutes shall consider the assessment of self-directed learning readiness as a pre-requisite to screen their applicants for entrepreneurship education programs. From entrepreneurs' perspective, both potential and practicing entrepreneurs can assess their own readiness to obtain formal entrepreneurship education through self-assessment on self-directed learning readiness instead of blindly enrolling in entrepreneurship education programs and dropping out the course half way through.

5. CONCLUSION

The study investigated the role of self-directed learning readiness on developing entrepreneurial

behaviors through social learning in the context of entrepreneurship education programs offered by state sector universities of Sri Lanka. Literature suggests that the entrepreneurship education programs in the country contemplate on social learning in developing entrepreneurial behaviors [12] who are generally self-directed learners in nature by being entrepreneurs [13,14]. Thus, the researcher expected that the positive association between the development of entrepreneurial behaviors and social learning in entrepreneurship education would be further increased among the course participants with a higher level of self-directed learning readiness and the findings of the study affirmed the same. Hence, this study affirms the tripartite relationship among behavior, individual and environment suggested by Bandura [8] in the context of entrepreneurship education. Further research in this area shall focus on changing the theoretical scope of this study by incorporating different theoretical structures and theories argued by commanding scholars in self-directed learning readiness, social learning and entrepreneurial behaviors. Furthermore, to address the natural restrictions of a quantitative research design, the future research on this research issue can be directed either with a qualitative approach or a mixed approach to elucidate the matter in a much more detailed manner.

ACKNOWLEDGEMENTS

The authors acknowledge the University of Colombo, University of Sri Jayewardenepura, University of Moratuwa, the editors and the anonymous reviewers of this journal.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Kuratko DF. The emergence of entrepreneurship education: Development, trends and challenges. *Entrepreneurship Theory and Practice*. 2005;29(5):577-598.
2. Mirza J. Why Sri Lanka needs more entrepreneurs. *Daily Financial Times*; 2017. (Accessed 27 August 2018) Available: <http://www.ft.lk>
3. Central Bank of Sri Lanka. Prices, wages, employment and productivity. *Annual Report*; 2017.
4. Global Entrepreneurship Monitor. Country profiles. *Global Report*; 2018.
5. Gamage AS. Small and medium enterprise development in Sri Lanka: A review. *Masuki Ronso*. 2003;3(4):133-150.
6. Gnyawali DR, Fogel DS. Environments for entrepreneurship development: Key dimensions and research implications. *Entrepreneurship Theory and Practice*. 1994;18(4):43-62.
7. Teague BT, Gartner WB. Toward a theory of entrepreneurial behavior. In the *Wiley Handbook of Entrepreneurship*. 1st Ed. New Jersey: John Wiley & Sons; 2017.
8. Bandura A. Behavior theory and the models of man. *American Psychologist*. 1974;29(12):859-869.
9. Scherer RF, Adams JS, Wiebe FA. Developing entrepreneurial behaviors: A social learning theory perspective. *Journal of Organizational Change Management*. 1989;2(3):16-27.
10. Gibb A. Creating conducive environments for learning and entrepreneurship. *Industry and Higher Education*. 2002;16(3):135-148.
11. Williams-Middleton K. Developing entrepreneurial behavior: Facilitating nascent entrepreneurship at the university. *Chalmers University of Technology*; 2010. (Accessed 20 August 2018) Available: <https://www.researchgate.net/publication/259639307>
12. Fernando MSJ, Nishantha B. Impact of social learning on entrepreneurial behavior: Case of entrepreneurship education at state sector universities in Sri Lanka. *Entrepreneurship Education*. 2019;2:171-188.
13. Tseng C. Connecting self-directed learning with entrepreneurial learning to entrepreneurial performance. *International Journal of Entrepreneurial Behavior & Research*. 2013;19(4):425-446.
14. Post E. Garrison's self-directed learning model: A qualitative study with nascent entrepreneurs. Paper Presented at Adult Education Research Conference, United States; 2014. (Accessed 29 August 2018) Available: <http://newprairiepress.org/aerc/2014/papers/69>
15. Cormier-Macburnie P, Kelleher WE, Mombourquette P, Sneddon G, Young JD. Small business employees' intention to learn: Establishing research directions. *Journal of Organizational Psychology*. 2017;17(4):112-126.

16. O'shea E. Self-directed learning in nurse education: A review of the literature. *Journal of Advanced Nursing*. 2003;43(1): 62–70.
17. Taylor JG. Faculty perceptions of core components perceived to be effective in their prominent graduate entrepreneurship education programs. University of South Florida; 2017. (Accessed 29 August 2018) Available:<http://scholarcommons.usf.edu/etd/7096>
18. Burns P. *Entrepreneurship and small business: Start-up, growth and maturity*. 4th Ed. London: Palgrave; 2016.
19. Gartner WB, Carter NM. Entrepreneurial behavior and firm organizing processes. In: Acs ZJ, Audretsch DB, Editors. *Handbook of Entrepreneurship Research*. Great Britain: Kluwer Academic Publishers; 2003.
20. Liao J, Welsch H. Patterns of venture gestation process: Exploring the differences between tech and non-tech nascent entrepreneurs. *The Journal of High Technology Management Research*. 2008;19(2):103-113.
21. Drucker PF. *Innovation and entrepreneurship: Practice and principles*. New York: Harper & Row; 1985.
22. Ronstadt R. The educated entrepreneurs: A new era of entrepreneurial education is beginning. *American Journal of Small Business*. 1987;11(4):37-54.
23. Valerio A, Parton B, Robb A. *Entrepreneurship education and training programs around the world: Dimensions for success*. Washington: The World Bank Group; 2014.
24. Naleemi R. Higher education in Sri Lankan universities today. *Colombo Telegraph*; 2013. (Accessed 27 August 2018) Available:<https://www.colombotelegraph.com>
25. Bandura A. *Social learning theory*. New York: General Learning Press; 1971.
26. Garrison DR. Self-directed learning: Toward a comprehensive model. *Adult Education Quarterly*. 1997;48(1):18-33.
27. Fisher MJ, King J. The self-directed learning readiness scale for nursing education revisited: A confirmatory factor analysis. *Nurse Education Today*. 2010;30(1):44-48.
28. Krejcie RV, Morgan DW. Determining sample size for research activities. *Educational and Psychological Measurement*. 1970;30:607-610.
29. Yi MY, Davis FD. Developing and validating an observational learning model of computer software training and skill acquisition. *Information Systems Research*. 2003;14(2):146-169.

© 2020 Nishantha and Fernando; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:
The peer review history for this paper can be accessed here:
<http://www.sdiarticle4.com/review-history/59604>