

THE INTERVENING EFFECT OF ENTREPRENEURIAL ORIENTATION ON THE NEXUS BETWEEN ENTREPRENEURIAL MOTIVATION AND SELF-EMPLOYMENT INTENTION: AN EVIDENCE FROM SRI LANKAN ENGINEERING GRADUATES

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Abstract

Entrepreneurship is a global phenomenon that results in economic progress throughout the world via the creation of new and innovative company start-ups and provide solutions to the niches in market economies. The drive of this study is to look at the nexus between entrepreneurial motivation and self-employment intention among Sri Lankan engineering graduates. This study incorporates the expectancy theory into the ground of entrepreneurship research. Despite of prior research focusing on entrepreneurial level, little emphasis has been devoted to entrepreneurial orientation as a predictor of self-employment intention among engineering graduates. This study provided insight on entrepreneurial motivation from the standpoint of graduates' entrepreneurial orientation and self-employment intention. The survey research strategy was employed, and data were obtained from 402 conveniently chosen engineering graduates from both private and state Universities. The data was analysed using Smart PLS 3.0. Findings indicate that those who want to be entrepreneurs are more inclined to consider starting their own businesses as it shows the significant nexus between entrepreneurial motivation and self-employment intention. Moreover, the nexus between entrepreneurial motivation and self-employment intention is mediated by the entrepreneurial orientation. The study pushes the frontiers of entrepreneurial literature while simultaneously offering community members useful, practical applications. This study suggests that the Sri Lankan government must take necessary actions to increase the entrepreneurial motivation of young groups. Furthermore, the government must intervene in entrepreneurial environments to foster the economy of Sri Lanka and the academia must reform their curricula based on the need of entrepreneurship.

Keywords: Engineering Graduates, Entrepreneurial Motivation, Entrepreneurial Orientation and Self-Employment Intention

1. Introduction

Entrepreneurship is booming all around the world. It is discovered to have a major effect on the economy of many nations in the rapidly changing and increasingly competitive global market environment. Entrepreneurship contributes to economic

development, job creation, increasing competitiveness, market related problem solving, human capital development and innovation in the economy (Inegbenobor, 2006). Moreover, this has substantially aided employment development, social stability, and economic

well-being in the countries (Sedláček & Sterk, 2017; Urbano & Alvarez, 2014). As a result, entrepreneurship is a driving force in a country's economy. The growth of self-employment sector is critical for the nations like Sri Lanka, where unemployment is a major issue. A plethora of studies have demonstrated that entrepreneurship plays significant role in encouraging economic growth in the country by creating job opportunities and eliminating poverty. Hence, it is considered, executing entrepreneurial activity is consequently a top priority in any society (Fayolle & Gailly, 2015). Here, the academia has been attempting to address this critical topic regarding entrepreneurial intention for decades, and this effort is still ongoing (Gomez, Araujo & Andreis, 2019). Although evidence indicated that intention comes from psychological aspects of individuals, socio cultural environment, and attitudes including skills and knowledge (Fayolle & Gailly, 2015), in countries like Sri Lanka, the role of entrepreneurship is more significant than in western countries in terms of creating self-employment possibilities and reducing unemployment as we are facing under employment and unemployment (Nishantha, 2009).

The graduates, must find employment on their own without resorting to pointless protest campaigns asking that the government supply them with jobs, since giving employment is critical problem to graduates due to economic instability, pandemic and inflations. Presently, the unemployment rate for university graduates is greater than the rate for less educated employees in Sri Lanka irrespective of field of their study. Then, offering work options for all graduates becomes critical (Ummah, 2009). Increasing graduate entrepreneurship is one method to address the problem of unemployment. Entrepreneurship after graduation is the procedure through which a graduate begins a business based on his or her personal professional goals (Olufunso, 2010). In order to become entrepreneur, graduates should be very innovative, energetic, clever, courageous, efficient, driven, and modern (Ayalew & Zeleke, 2018). Graduate oversupply has resulted to a mismatch between the quantity of graduates and available employment possibilities in the market. In Sri Lanka, number of graduates passing out from the university is also keep on growing. On the other hand, it is important to have engineering graduates since they are the one who think creatively, changing the world more technically, helps for technology,

intellectual and scientific development (Kingston University, 2021). It is noted that grads look for job opportunities in Singapore, Australia, US and UK. Although, the government has created micro-credit lending programs to assist young and inexperienced graduates in starting a company, we need to make sure to what extent graduates have motivation to become entrepreneur. Because of that, graduates are interested in self-employment rather looking for a job (Achchuthan & Nimalathan, 2012). Graduates may have varying attitudes and reactions to the required self-employment intentions. Reliant on their upbringing and other characteristics, people may have a good or negative attitude about self-employment. If the students have a good attitude toward self-employment, it is likely that they will establish their own business after graduation. Individuals wanting greater money, freedom, and net privileges have a strong proclivity to involve in business (Fitzsimmons & Douglass, 2005). But the graduates now a days are having an interest in becoming the boss and nurturing into new adventure. Hence, they are interested in ventures rather working for someone else. Although, motivation to become entrepreneur is what people accept theoretically, but comparatively it is low as substantial amount

of graduates are looking for job opportunities than venturing into new.

Many studies on self-employment intentions exist everywhere, with an emphasis on toward entrepreneurial activities. Nevertheless, emerging nations have not yet received adequate attention (Gomez et al., 2019). Surprisingly, the government has made a number of efforts to boost employment via entrepreneurship in Sri Lanka, but there is still a scarcity of research on entrepreneurial motivation and intention, particularly among engineering graduates. Hence, this study will shed the new insight with the help of entrepreneurial orientation as there are scarcity of studies as mediator in Sri Lankan context. Hence, the research problem stems graduates lack of motivation to participate in self-employment. Henceforth the question is that are there any nexus between entrepreneurial motivation and self-employment intention among Sri Lankan engineering graduates.

This introduction part have summarized the need for self-employment by providing few evidences, the next part focuses on reviewing literature with hypothesis development.

2.Theoretic Nature and Development of Hypotheses

2.1 Entrepreneurial motivation and Self-Employment Intention

Getting inspiration is an essential thing in our routine. It serves as the foundation for biotic, perceptive, and social control (Ryan & Deci, 2000). Entrepreneurs' motivation refers to their desire to devote time, liveliness, and money in their business plan, as well as their behavior on topics such as tactic or readiness to grow with the company (Zanaki, Renko, & Bullough, 2012). This is due to the fact that motivation entails energy, direction, tenacity, and goal. Goals and motivations are important factors in forecasting human behavior. This suggests that there is a connection between goals, motives, and conduct.

Self-employment intention is the desire to launch a new commercial (Zhao, Hills, & Seibert, 2005). Because, entrepreneurship provides graduates with the possibility to work for themselves. It provides employment opportunities for young people and graduates (Beeka & Rimmington, 2011). It lowers societal problems, and public policymakers are emphasizing and engaging students in entrepreneurship to increase employment rates (Fatoki, 2014). The nexus between

entrepreneurial motivation and self-employment intention has already been seen in articles with positive nexus (Kim, Ahmed, & Ibrahim, 2014).

This nexus can be seen through expectancy theory. As per the theory, Individuals' expectations are based on their assumption that their efforts will result in the desired performance outcomes. It makes person to be more confidence that "I can accomplish this." As per this theory people behave more out of anticipation than deprivation and have a regular drive to satisfy their fundamental requirements (Locke & Baum, 2007). Hence, we can say that our motivation is one of the reason for self-start ups. Therefore it is hypothesized as follows;

H1: Entrepreneurial motivation positively relates to Self-Employment Intention

2.2 Entrepreneurial motivation and Entrepreneurial orientation

Being innovative, proactive and being a risk taker is all what we need in entrepreneurship. It is said that those who have motivation towards entrepreneurship, have above three characteristics (Gomez et al., 2019). On the other hand, those are the prime areas in entrepreneurial orientation, since it is an essential factor of entrepreneurial intention that distinguishes entrepreneurs from others

based on above reasons (Okhomina, 2010). If a person is motivated, that is seen in their behavior. Undoubtedly, entrepreneurs are motivated towards new ventures due to being an own boss. Hence, the need for going with that motivation is needed. Thus, the strong emphasis on entrepreneurial orientation is required. Then only, the motivation can be converted into the long term emphasis towards entrepreneurship. This nexus can be seen with the view of expectancy theory. People will choose to behave or act in a given manner because they are driven to choose one behavior over another based on what they assume the outcome of that chosen conduct to be. In essence, the attractiveness of the result determines the incentive for behavior selection. However, at the heart of the idea is the cognitive process through which an individual processes the numerous motivating components before making the final decision. The outcome is not the only consideration in selecting how to respond (Hirschi & Fischer, 2013). Expectancy Theory is concerned with the perceptive processes of choice or selecting and describes the procedures that an individual goes through while making a decision. People in a particular circumstance, then, mix their requirements with their beliefs and

expectations of achievement. Hence, the nexus is hypothesized as follows;

H2: Entrepreneurial Motivation positively relates to Entrepreneurial Orientation

2.3 Entrepreneurial orientation and Self-Employment Intention

Entrepreneurial orientation contributes to the nature of entrepreneurial strategy-making and its interaction with tactic, atmosphere, and other factors. On the other hand, intention to occupy in entrepreneurial behavior is referred to as entrepreneurial intent. The person's entrepreneurial orientation helps to get the intention to start the business (Okhomina, 2010). This also can be seen through the lens of expectancy theory.

According to the expectancy theory idea, the individual believes, "If I do this, I will obtain that," and will receive the desired outcome if the performance expectation is satisfied. It also claims to provide needs, objectives, preferences, values, sources of motivation, and the degree of an individual's liking for a specific outcome. When one individual is driven, he will achieve a result that one employee finds inspiring and desired. Therefore, this nexus is conjectured as follows;

H3: Entrepreneurial Orientation positively relates to Self-Employment Intention

2.4 Mediating role of entrepreneurial orientation

The nexus between entrepreneurial motivation and self-employment intention is widely accepted concept in many countries. Because it is believed that entrepreneurial motivation is the prime reason for becoming an entrepreneur (Achchuthan & Nimalathasan, 2012; Ummah, 2009). Since, you have the motivation only, you will try to do something new, even in new venture, the life changing one. It is said that, although you are motivated, it leads to the entrepreneurial orientation (Zhang, Wang, & Owen, 2015). This orientation towards entrepreneurship leads people to self-employment. This also can be seen with the view of expectancy theory. As per expectancy theory, person should be motivated towards investing him. Thus, individuals are motives to desire in independence and need for achievement. Hence, this type of motivation aid them towards the venture by risk taking is called as orientation. Finally, the staple of the theory is achieved; that is cognitive process (Zhang et al., 2015). It is a choice or selecting that describes the procedures that an individual goes through in order to make a decision.

People in a particular circumstance, then, mix their requirements with their beliefs and expectations of achievement (Zhao et al., 2005). Hence, we can say that the cognitive process make the nexus among the above construct. Therefore, this mediation is hypothesized as follows;

H4: Entrepreneurial orientation mediates the nexus between Entrepreneurial motivation and Self-Employment Intention.

3. Research Methods

3.1 Sampling and Collection of Data

This study used Sri Lankan engineering graduates as sample. Population consist of engineering graduates from state universities and private universities in Sri Lanka. The samples were collected from respondents via convenient sampling method through online survey method since it is difficult to reach large community and using online survey is considered as rich domain in reaching myriad of people within the shorter period of time. Further, for the people who directly do not wish to open up their views can give their views in online surveys and it saves the time, cost too (Wright, 2005). Among the 437 respondents, usable questionnaire were 402. Since the expected amount of responses is 384 or above for the unknown population as per Conroy (2015), and the response rate is

acceptable for this study. Among the 402 samples, 82% were male and 18% were female. 84% of the respondents were in the 25-40 age group who have participated in the study. Other 16% were above 40 years age group. 67% of the respondents were from state universities and rest 33% of respondents from private universities.

3.2 Variables and Measures

Entrepreneurial motivation, entrepreneurial orientation and self-employment intention were taken as variables for this study. Entrepreneurial motivation was an independent variable, self-employment intention was dependent variable and entrepreneurial orientation was mediator variable. Entrepreneurial motivation questions were adopted from Taormina and Lao (2007). Sample item is “I believe that entrepreneurship enables my personal growth” with 0.7 Cronbach alpha. Further, questions for entrepreneurial orientation were adopted from Covin and Slevin (1991). The sample item is “I believe that owing to the nature of the environment, bold, wide-ranging acts are necessary”, with 0.751 Cronbach alpha. The self-employment questions were adopted from Ummah (2009) which shows the Cronbach alpha 0.868. The

sample item is “I have acceptable level of capability of Business knowledge.” The respondent must select a position on the Likert scale format from 1 to 5. Further, pilot study was conducted with twenty engineering graduates in order to test the validity and reliability of the study, thus, in turn to feasibility of the study. During the pilot study, few jargons were removed and made the questions more understandable.

4.Data Analysis

The Smart PLS tool has been recognized as one of the greatest widespread structural equation modeling (SEM) tool in research. In recent years, business research has demonstrated an increasing reliance on structural equation modeling (SEM) as one of the finest typical methods for analyzing subjects in the business management area (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014) and it is known as the best method for complex analyses including moderator and mediator analysis (Hair, Sarstedt, Ringle, & Mena, 2012). Latent variables are either exogenous or endogenous, depending on the SEM assumptions. Exogenous latent variables are those that have one or more headed arrows that move out of them exclusively; hence, latent variables represent independent variables. Here, entrepreneurial

motivation is considered as independent variable. At the same time, latent variables are said to as endogenous when they have leastwise headed arrows traveling into them; in this case, latent variables are dependent variables that indicate self-employment intention (Astrachan, Klein, & Smyrniotis, 2002). Although there is two measurement indicators, all the indicators are reflective as changes in the construct can determine the changes in value (Hair et al., 2012). Before beginning the analysis, the correctness of the data was checked; no values outside of the specified range were identified, and the mean, standard deviation, and correlation appeared to be suitable. In addition, no straight-lining or contradictory replies were found in the data set.

4.1 Reliability

This Smart PLS software has shown, and it has been set to three hundred (300) maximum iterations with a stop criteria of seven (7). A high value of communality (near to one) implies that variables are well matched with the factor solution, and loadings of indicators should be 0.40 or higher are acceptable (Hulland & Business, 1999). Hence, the indicators of entrepreneurial motivation, entrepreneurial orientation and self-employment intention have shown loadings above 0.50 communal value, this implies there is no problem with this data. Based on that, composite reliability and Cronbach alpha were tested in order to assess the internal consistency of those reflective measures. As it is shown in the table 1, composite reliability and Cronbach alpha values are more than 0.7 and it is recorded the accepted level (Hair et al., 2012).

Table 1: Construct's mean, standard deviation, reliability, validity

Construct	Mean	Std.	CrA	CR	AVE
Entrepreneurial Motivation	4.41	0.75	0.842	0.875	0.500
Entrepreneurial Orientation	3.78	0.47	0.689	0.784	0.501
Self-Employment Intention	4.52	0.86	0.813	0.863	0.500

Note: Std= Standard Deviation, CrA = Cronbach's Alpha, CR = composite reliability, AVE = average variance extracted

4.2 Validity

Convergent validity was measured based on average variance extracted (AVE) which shows the quantity of indicator correlations. As per Sarstedt, Ringle, Smith, Reams, and Hair (2014), AVE cut-off value is equal or higher than 0.5. Hence, the Table 1 shows the AVE is also in accepted level of convergent validity ($AVE \geq 0.5$).

Here, the discriminant validity is used to assess the amount of relatedness between research variables through computing correlations, or cross loadings (Henseler, Ringle, & Sarstedt, 2015). All diagonal value of corresponding variable are highly loaded than other constructs. The goal here is to relate the square root value of the extracted average variance (AVE) for each construct to its correlation values with other constructs in the structural mode. When the value of the extracted average variance (AVE) for each construct is larger than its correlation values with other constructs, a positive outcome can be obtained (Hair et al., 2014). As per the Table 2, diagonal value is less than the correlation value, shows that there are discriminant validity among each variables.

Table 2: Discriminant Validity

	EM	EO	SEI
EM	0.664		
EO	0.434	0.649	
SEI	0.629	0.474	0.693

4.3 Structural Model Measurement

The second stage is to examine the structural model to confirm that the quality of the research model is adequate. The multicollinearity test is utilized to determine if there are significant inter-correlations between the independent components in the structural model. As per Hair, Black, Babin, and Anderson (2009) values of inflation factor should not exceed 10. These variables have less than 5. Hence, no any multicollinearity issue and this is free from common method bias (Kock, 2015) in this data. Coefficient determination should be in between zero to one, which shows the predictive accuracy (Hair, Ringle, & Sarstedt, 2011). Coefficient value (R^2) of entrepreneurial orientation is 0.226, which reveals that 22.6% of the variability in entrepreneurial orientation is explained by entrepreneurial motivation and self-employment intention is 0.513 which reveals that 51.3% of variability is explained by entrepreneurial orientation and motivation.

4.4 Path coefficient significance using bootstrap test

The Bootstrapping test used to assess the significance of Path Coefficients utilizing the Partial Least Square Approach for Structural Equation Modeling (PLS-SEM) based on (T-statistics) and impose the T-test values (Tenenhaus, Vinzi, Chatelin, & Lauro, 2005). Here the researcher has utilized 402 samples cases under 0.05 significance levels with 5000 samples while setting bootstrapping in order to get t-statistics, standard error (Table 3). It is a resampling method that generates a large number of subsamples (the literature recommends 5000 subsets); the bootstrapping process includes spontaneous droppings and substituting for sets of

observations from the original survey to gather the subsets, and then each of the subsets is used to predict the model and acquire the PLS-SEM result (Henseler et al., 2015).

As per Table 3, all hypothesized nexus between these three variables have significant path coefficient ($p < 0.05$).

It shows that there is positive nexus amid entrepreneurial motivation, orientation and self-employment intention as per the proposed paths.

Table 3: Path coefficient, T statistics, P-value and confidence interval

Projected paths	Coefficient	T-statistics	P-value	Bias	2.5%	97.5%
EM-EO	.475	6.751	.000	.008	.289	.592
EM-SEI	.698	2.390	.000	.006	.572	.791
EO-SEI	.168	2.115	.035	-.002	-.008	.294
EM-EO-SEI (Mediation) Indirect Effect	.080	1.924	.050	.001	-.003	.156

Mediation Analysis: The intermediation effect of entrepreneurial orientation on the nexus amid entrepreneurial motivation and self-employment intention was assessed through Baron and Kenny (1986) and Hair,

Ringle, and Sarstedt (2013) guiding principles. The through nexus between entrepreneurial motivation and self-employment intention was significant positive ($b=0.698$, $P < 0.05$). Afterward

including mediator variable (Entrepreneurial orientation), the path coefficient for entrepreneurial motivation to entrepreneurial orientation ($b = 0.475$, $P < 0.05$) and entrepreneurial orientation to self-employment intention ($b=0.168$, $P < 0.05$) were both significant. Therefore, the indirect effect of entrepreneurial motivation and self-employment intention through the mediator (entrepreneurial orientation) was 0.08 (0.475×0.168), and its significance was tested using bootstrapping results. The standard deviation was determined by multiplying the product of the two path coefficients from the bootstrapping subsample by 0.05. The substantial indirect impact implies that entrepreneurial orientation mediates the connection amid entrepreneurial motivation

and self-employment intention. Lastly, the effectiveness of mediation was assessed by calculating the variation accounted for (VAF) (Hair et al., 2013).

The whole effect was 0.778 (through effect ($b=0.698$) plus indirect effect ($b=0.080$). Thus, the VAF has a value of 0.9 ($0.698/0.778$). This displays that there is complementary partial mediation and the 90 percentage of effect of entrepreneurial motivation and self-employment is explained by the indirect nexus between entrepreneurial motivation and self-employment, through entrepreneurial orientation (Hair et al., 2013; Nitzl, Roldan, & Cepeda, 2016). Subsequently the direct and indirect effect are significant, thereby supporting H4.

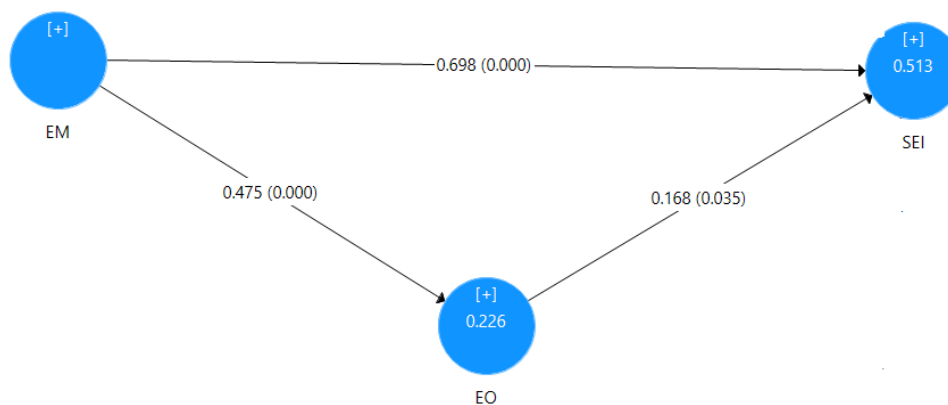


Figure 2: Mediation effect

4.5 Model Fit

Structural equation modelling is having few indices including Normed Fit Index (NFI)

and SRMR to test model fit (Henseler & Sarstedt, 2013). This study gives the SRMR 0.074 which is below the accepted value 0.08

and NFI should range from 0 to 1, NFI in this study is 0.392, which is also acceptable. All these compare the definite correlation matrix grounded on actual observations to the anticipated one using the model, this ensures that there is no misspecification in the model.

5. Discussion and Conclusion

Entrepreneurship is a highly relevant topic right now and has become a social issue (Aziz, Mahmood, Tajudin, & Abdullah, 2014). The prime objective of this current study was to analyze the nexus amid entrepreneurial motivation and self-employment intention with the mediating effect of entrepreneurial orientation among the Sri-Lankan engineering graduates with the lens of expectancy theory. Results of the study has revealed that here is a moderate positive nexus between entrepreneurial motivation and self-employment intention, which is in line with the preceding studies carried out in Sri Lanka (Achchuthan & Balasundaram, 2012; Ummah, 2009) and globally (Barba-Sánchez & Atienza-Sahuquillo, 2018; Gelaidan & Abdullateef, 2017; Kim-Soon, Ahmad, & Ibrahim, 2014). The reason behind that is many engineering graduates are not provided with expected jobs in Sri Lanka, since we have less job opportunities and openings (Kanagasingam,

2017). Not only for that, the substantial number of graduates, used to start their business for own happiness and the thought of being an own boss. Additionally, many graduates' wishes to be so independent in their work and ready to pursue the business (Ndofirepi, 2020). In addition to that, this study tested with mediating effect of entrepreneurial orientation. Surprisingly, the results revealed significant outcomes, which is fairly novel in the Sri Lankan setting. This study has helped the entrepreneurship empirical literature by adding new findings in the entrepreneurship studies that entrepreneurial orientation can also be the mediator between entrepreneurial orientation and self-employment intention. This is the foremost study to look at the linkage between entrepreneurial motivation and intention via the lens of entrepreneurial orientation. Hence, the entrepreneurial motivation of engineering graduates lead to entrepreneurial orientation, thus, it leads to self-employment intention among them. Not only that, it added to the current literature by exploring the nexus amid entrepreneurial motivation and intention research from the perspective of Sri Lankan engineering graduates through entrepreneurial motivation. Hence, the study disclosed that entrepreneurial motivation is

significantly, positively connected to self-employment intention.

Not only that, it is said that entrepreneurship is ingrained in all graduates, regardless of field of study (Al-Suraihi, Ab Wahab, & Al-Suraihi, 2020). As it is expected, entrepreneurial motivation have the substantial amount of nexus with self-employment intentions. But, surprisingly, entrepreneurial motivation leads to entrepreneurial orientation (Eijdenberg, 2016; Shan & Heo, 2019), thus in turn to self-employment intention. It can be seen that self-employment is a common expectation for males and females in the country which cannot be avoided in terms of gender as now a days engineering stream is prevalent. Further, based on the results, it can be realized that most of the engineering graduates feel the same way about entrepreneurship and interested in it.

5.1 Theoretical, Practical and Social Implications

The intention of the study is to apprehend the nexus amid entrepreneurial motivation and self-employment intention among engineering graduates. This work has practical, theoretical and social implications. The researcher can give a few theoretical implications based on the findings. In terms of theoretical ramifications, first, a plethora

of research on entrepreneurial motivation have been conducted in the west and east to date. Researchers in impoverished countries, on the other hand, have taken a haphazard approach to researching the intersection of entrepreneurial motivation and intention in the Sri Lankan setting especially with engineering graduates. This study incorporated expectancy theory in the context of entrepreneurship. Further, this paper enhances to an incomplete acquaintance of the causes of self-employment intention by considering both entrepreneurial motivation and orientation. This is the first study considering the entrepreneurial orientation as mediator in the nexus amid entrepreneurial motivation and self-employment especially in Sri Lanka with engineering graduates. This study adds to the scholarly debate by adding to a deeper understanding in entrepreneurial intentions, particularly among young university graduates, particularly engineering graduates. Findings of the research generates a scientific evidence from Eastern country, Sri Lanka.

With regard to practical implications, researcher give few of them. For many years, employment of graduates, particularly engineering graduates, has been a talk of the town in Sri Lanka. Policy makers have to design the curriculum as per the interest of

graduates. Policymakers and the university grants commission must devise methods to encourage entrepreneurial purpose among students, who are increasingly interested in working for themselves. So, if educators and policymakers emphasize the benefits of self-employment and influence undergraduates' attitudes by emphasizing it more in their curriculum, the country's economy will benefit as well. To encourage entrepreneurship, Lecturers could possibly remind graduates of the great earning potential and independence that an entrepreneurial profession provides. The government has to do a lot more in creating a business environment which is suitable for young graduates (Gomez et al., 2019). The academic setting should play a critical role in revaluing the societal concept of gender, which discriminates against women and keeps them from entrepreneurship.

Government intervention is required to create favorable business legislation, grant tax redemptions to small companies, assist small businesses, provide decent chances for small company expansion, be prepared to lend government loans, and reduce the processes for starting a firm, amid other things in order to foster the entrepreneurship. More than that, the government and economic environment of the country should be stable

enough for new startups without conflicts and fluctuations.

With regard to social implications, in fact, the entrepreneurship is a social phenomenon, which gives the work opportunity to the community, increase the standard of living of local citizens, thus in turn, higher the individual income. Further, higher the entrepreneurship thought of graduates leads to recognize the existing societal problems that can be converted into new ventures. Graduates may simplify their own methods to meet the needs of millions of individuals living in some of the most difficult economic situations while also encouraging more productive entrepreneurship (Hall, Matos, Sheehan, & Silvestre, 2012). Some graduates, who can become autonomous entrepreneurs, can concentrate their efforts on developing businesses that address societal issues such as poverty, health care, energy, private education, and water purification where it has been considered a growing realization. Furthermore, young bloods can build on recognizing the various demands of diverse groups in various socioeconomic and institutional circumstances (Kroeger & Weber, 2014). Through this social entrepreneurship, graduates with the help of government can

focus on both financial benefit and societal benefits (Hall et al., 2012).

With regard to entrepreneurial activity, the university system and environment should empower women more deliberately to increase their confidence and perspectives of themselves, their talents, and the surroundings (Palmer, Fasbender, Kraus, Birkner, & Kailer, 2021). In accordance with this, the government and colleges should provide programs that encourage entrepreneurship in order to transform the mentality, boldness, and intent of students who do not see entrepreneurship as a viable future career option and better to provide trainings on creativity. Government can continuously give the incentives to the entrepreneurs to grow their business up through training and development and monetary levels.

5.2 Limitations of the study and Directions for future research

Even though the current study is intensely based on methodological and theoretical rigor, there are certain boundaries that must be accredited. This research, like the majority of others, has flaws. At first, the major limitation was that, this study drew on a sample of Sri Lankan engineering graduates from public and private Universities.

Furthermore, data were gathered on a convenient basis from engineering graduates residing in diverse areas. As a result of the diverse backgrounds of those who participated, generalizability of this conclusion is rather challenging. More sample size can be used in the future. As, this study considered only Sri Lanka, in order to test the rationality of the findings; for further confirmation, replication, and generalization, a more extensive investigation across organizations, vocations, and nations with similar cultures is required.

Second, we investigated the nexus between entrepreneurial motivations and self-employment intention. This is the first study embarking on examining entrepreneurial orientation as mediator. The predictor level and the nexus of entrepreneurial motivations on self-employment intention has shown moderate nexus and the predictor level was 51.3%. Hence the other variables that predict self-employment should be found. Entrepreneurial education, background factors, attitudes, behaviors can be utilized in order to identify the relationship with self-employment intentions (Fayolle & Gailly, 2015)

Third, this research is a cross-sectional study. A longitudinal study can be undertaken to determine the causal nexus between these

factors. Fourth, this survey solely included engineering grads. In the future, research on diverse graduates, such as management, science, and information technology graduates, can be conducted, leading to the external validity of these findings. Fifth, this study can have moderation effect on gender in this nexus. Thus, in moderation, with the goal of determining if males or females have the higher intention to do business via multi group analysis is more appreciable.

References

- Achchuthan, S. & Nimalathan, B. (2012). Level of entrepreneurial intention of the management undergraduates in the University of Jaffna, Sri Lanka: Scholars and undergraduates perspective. *South Asian Academic Research Journals*, 2(10), 24-42.
- Al-Suraihi, A. H. A., Ab Wahab, N., & Al-Suraihi, W. A. (2020). The Effect of Entrepreneurship Orientation on Entrepreneurial Intention among Undergraduate Students in Malaysia. *Asian Journal of Entrepreneurship*, 1(3), 14-25.
- Astrachan, J. H., Klein, S. B., & Smyrnios, K. X. (2002). The F-PEC scale of family influence: a proposal for solving the family business definition problem. *Family Business Review*, 15(1), 45-58.
- Ayalew, M. M., & Zeleke, S. A. (2018). Modeling the impact of entrepreneurial attitude on self-employment intention among engineering students in Ethiopia. *Journal of Innovation and Entrepreneurship*, 7(1), 1-27.
- Aziz, R. A., Mahmood, R., Tajudin, A., & Abdullah, M. H. (2014). The nexus between entrepreneurial orientation and business performance of SMEs in Malaysia. *International Journal of Management Excellence*, 2(3), 221-226.
- Barba-Sánchez, V., & Atienza-Sahuquillo, C. (2018). Entrepreneurial motivation and self-employment: evidence from expectancy theory. *International Entrepreneurship and Management Journal*, 13(4), 1097-1115. doi:10.1007/s11365-017-0441-z
- Baron, R.M., & Kenny, D.A. (1986). The moderator–mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations, *Journal of Personality and Social Psychology*, 51(6), 1173-1198.

- Beeka, B.H., & Rimmington, M. (2011). Entrepreneurship as a career option for African youths, *Journal of Development Entrepreneurship*, 16(1), 145-164.
- Conroy R. (2015). *Sample size: A rough guide*. Retrieved from: http://www.beaumontethics.ie/docs/application/sample_size_calculation.pdf.
- Covin, J. G., & Slevin, D. P. (1991). A conceptual model of entrepreneurship as firm behavior. *Entrepreneurship Theory and Practice*, 16(1), 7-26.
- Eijdenberg, E. L. (2016). Does one size fit all? A look at entrepreneurial motivation and entrepreneurial orientation in the informal economy of Tanzania. *International Journal of Entrepreneurial Behavior & Research*, 22(6), 804-834. doi:10.1108/IJEBR-12-2015-0295
- Fatoki, O. O. (2014). The Entrepreneurial Intention of Undergraduate Students in South Africa: The Influences of Entrepreneurship Education and Previous Work Experience, *Journal of Social Sciences*, 5(7), 294-297. doi:10.5901/mjss.2014.v5n7p294
- Fayolle, A. & Gailly, B. (2015), The impact of entrepreneurship education on entrepreneurial attitudes and intention: hysteresis and persistence, *Journal of Small Business Management*, 53(1), 75-93.
- Fitzsimmons, J.R. & Douglas, E.J. (2005). *Entrepreneurial attitudes and entrepreneurial intentions: A cross-cultural study of potential entrepreneurs in India, China, Thailand and Australia*. Babson-Kauffman Entrepreneurial Research Conference held on 9th of June 2005 at Wellesley, MA.
- Gelaidan, H. M., & Abdullateef, A. O. (2017). Entrepreneurial intentions of business students in Malaysia: The role of self-confidence, educational and relation support, *Journal of Small Business and Enterprise Development*, 24(1), 54-67. doi:10.1108/JSBED-06-2016-0078
- Hair Jr., Sarstedt, M., Hopkins, L., & G. Kuppelwieser, V. (2014). Partial least squares structural equation modeling (PLS-SEM) An emerging tool in business research. *European Business Review*, 26(2), 106-121.

- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2009). *Multivariate data analysis*. New Jersey: Pearson Education.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139-152.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Editorial-partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. *Long Range Planning*, 46(1-2), 1-12.
- Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, 40(3), 414-433.
- Hall, J., Matos, S., Sheehan, L. and Silvestre, B. (2012). Entrepreneurship and innovation at the base of the pyramid: A recipe for inclusive growth or social exclusion? *Journal of Management Studies*, 785-812.
- Henseler, J., & Sarstedt, M. (2013). Goodness-of-fit indices for partial least squares path modeling. *Computational Statistics*, 28(2), 565-580.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115-135.
- Hirschi, A., & Fischer, S. (2013). Work values as predictors of entrepreneurial career intentions. *Career Development International*, 18(3), 216-231.
- Hulland, J., & Business, R. I. S. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic Management Journal*, 20(2), 195-204.
- Inegbenobor, U. (2006). Equity investment in small scale businesses. *Journal of Business and Management*, 15(4), 345-356.
- Kanagasingam, V. (2017). Theorizing Unemployment among Management Graduates in Sri Lankan State Universities with the Theory of Communicative

- Action. *International Journal on Global Business Management and Research*, 6(1), 32-42.
- Kingston University of London. (2021). *Five benefits of Engineering degree*. Retrieved from <https://www.kingstonisc.com/blog/categories/study-abroad/5-benefits-of-studying-engineering>
- Kim-Soon, N., Ahmad, A. R., & Ibrahim, N. N. (2014). Entrepreneurial Motivation and Entrepreneurship Career Intention : Case at a Malaysian Public University. *Crafting Global Competitive Economies: Vision Strategic Planning & Smart Implementation*, 2020, 1001-1011. doi:10.5171/2016.792385
- Kock, N. (2015). Common method bias in PLS-SEM: A full collinearity assessment approach. *International Journal of e-Collaboration*, 11(4), 1-10.
- Locke, E. A., & Baum, J. R. (2007). Entrepreneurial motivation. In J.R. Baum & M. Frese & R.A. Baron (Eds.), *The psychology of entrepreneurship; organizational Frontiers series* (pp.93–112).
- Moreno-Gómez, J., Gómez-Araujo, E., & Castillo-De Andreis, R. (2019). Parental role models and entrepreneurial intentions in Colombia. *Journal of Entrepreneurship in Emerging Economies*, 12(3), 413-429. doi:10.1108/JEEE-04-2019-0048
- Ndofirepi, T. M. (2020). Nexus between entrepreneurship education and entrepreneurial goal intentions: Psychological traits as mediators. *Journal of Innovation and Entrepreneurship*, 9(1), 1-20. doi:10.1186/s13731-020-0115-x
- Nishantha, B. (2009). *Influence of Personality Traits and Socio-demographic Background of Undergraduate Students on Motivation for Entrepreneurial Career: The Case of Sri Lanka*. Euro Asia Management Studies Association (EAMSA) Conference held on 5th December 2008 at Doshisha Business School, Kyoto, Japan
- Nitzl, C., Roldan, J. L., & Cepeda, G. (2016). Mediation analysis in partial least squares path modeling: Helping researchers discuss more

- sophisticated models. *Industrial management & data systems*, 2, 1-28
- Okhomina, D. (2010). Entrepreneurial orientation and psychological traits: the moderating influence of supportive environment. *Journal of Behavioral Studies in Business*, 2, 1-16.
- Olufunso, O. F. (2010). Graduate entrepreneurial intention in South Africa: Motivation and obstacles. *International Journal of Business and Management*, 5(9), 87–98.
- Palmer, C., Fasbender, U., Kraus, S., Birkner, S., & Kailer, N. (2021). A chip off the old block? The role of dominance and parental entrepreneurship for entrepreneurial intention. *Review of Managerial Science*, 15(2), 287-307.
- Ryan, R. M., and E. L. Deci (2000). Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being, *American Psychologist*, 55(1), 68–78
- Sarstedt, M., Ringle, C. M., Smith, D., Reams, R., & Hair, J. F. (2014). Partial least squares structural equation modeling (PLS-SEM): A useful tool for family business researchers. *Journal of Family Business Strategy*, 5(1), 105-115.
- Sedláček, P., & Sterk, V. (2017). The growth potential of startups over the business cycle, *American Economic Review*, 107(10), 3182-3210.
- Scarborough, N. (2011), *Effective Small Business Management*. New Jersey, NJ: Pearson, Upper Saddle River.
- Shan, L., & Heo, C. M. (2019). Effects of Entrepreneurship Motivation on Entrepreneurial Opportunity Competence in Preliminary Young Entrepreneurs: Focusing on Mediating Effects of Entrepreneurial Efficacy and Entrepreneurial Orientation. *Asia-Pacific Journal of Business Venturing and Entrepreneurship*, 14(1), 117-137.
- Taormina. R. J., & Lao. S. K. (2007). Measuring Chinese entrepreneurial motivation personality and environmental influences. *International Journal of Entrepreneurial Behaviour & Research*, 13(4), 200–221.
- Tenenhaus, M., Vinzi, V. E., Chatelin, Y. M., & Lauro, C. (2005). PLS path

- modeling. *Computational statistics & data analysis*, 48(1), 159-205.
- Ummah, S. (2009). *Entrepreneurial motivation and self-employment intention: An empirical study on management undergraduates in Sri Lanka*. (Unpublished Master's Thesis) University of Sri-Jayewardenepura, Nugegoda.
- Urbano, D., & Alvarez, C. (2014), Institutional dimensions and entrepreneurial activity: an international study, *Review of Small Business Economics*, 42(4), 703-716.
- Wright, K. B. (2005). Researching Internet-based populations: Advantages and disadvantages of online survey research, online questionnaire authoring software packages, and web survey services. *Journal of computer-mediated communication*, 10(3), 1034-1044.doi:10.1111/j.1083-6101.2005.tb00259.x
- Zanakis, S. H., Renko, M., & Bullough, A. (2012). Nascent entrepreneurs and the transition to entrepreneurship: Why do people start new businesses? *Journal of Developmental Entrepreneurship*, 17(1), 1-25.
- Zhang, P., Wang, D.D., Owen, C.L. (2015). A study of entrepreneurial intention of university students. *Entrepreneurship Research Journal*, 5(1), 61-82.
- Zhao, H., Seibert, S. E., & Hills, G. E. (2005). The mediating role of self-efficacy in the development of entrepreneurial intentions. *Journal of applied psychology*, 90(6), 1265.