

ENTREPRENEURSHIP EDUCATION: A SYSTEMATIC REVIEW

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Abstract

The objective of this paper is to provide a systematic review on impacts of entrepreneurship education studies and focus groups chosen in entrepreneur education studies. The research methodology was a meta-analysis of 16 relevant articles obtained through online databases and journals such as Google Scholar, Library Genesis, Science Direct, Elsevier, Emerald Insight and JSTOR. Keywords used in the search were entrepreneurship in higher education, effective entrepreneurship, entrepreneurship curriculum, and systematic review for entrepreneurship. The result of the study shows the benefit of entrepreneur, need of improvement for enterprise curriculum beside skills and knowledge. The focus groups in the entrepreneurship education studies were found to be three groups, namely: Higher Education (HE), Secondary Education (SE) and Rural Communities (RC). Findings from this study will encourage assimilation and implementation of entrepreneurship education curriculum and development of veritable Small and Medium Enterprises (SMEs) activities.

Keywords: Entrepreneurship in higher education; Effective entrepreneurship; Entrepreneurship curriculum.

1.0 Introduction

Basically, education programs are designed to provide training according to the mission of a country in order to face global competition and emphasize the element of innovation in science and technology that can generate economically based knowledge (K-Economy) Dumciuviene (2015). Study indicated that Malaysia has 20 Public Universities, 34 Polytechnics, 91 Community Colleges and 413 Private Higher Education Institutions offering more than 10 areas of specialization. In the year 2016, 371, 935 graduated from various higher institutions with Doctorate degree, graduate diploma, bachelor degree, advanced diploma, diploma, and certificate, among others (Haj Din, Anuar, and Usman, 2016).

Every year, the number of enrollment and graduates in educational institutions increases (see tables 1 and 2). This means there is a need and opportunities to produce human capital through social, business and sciences; engineering, manufacturing and construction; as well as services in all Higher Institutions (HI) in Malaysia (Haj Din, Anuar, and Usman (2016).

Table 1: Field of Studies Offered at Higher Education Institutions (HEI)

| S/N | Field of Study | Higher Education Category | | | |
|-----|--|---------------------------|--------------------|-------------|-------------------|
| | | Public University | Private University | Polytechnic | College Community |
| 1. | Education | ✓ | ✓ | | |
| 2. | Literature and Humanities | ✓ | ✓ | ✓ | ✓ |
| 3. | Social Sciences, Business, and Law | ✓ | ✓ | ✓ | ✓ |
| 4. | Science, Mathematics, and Computer | ✓ | ✓ | ✓ | ✓ |
| 5. | Engineering, Manufacturing, and Construction | ✓ | ✓ | ✓ | ✓ |
| 6. | Agriculture and Veterinary | ✓ | ✓ | ✓ | ✓ |
| 7. | Health and Welfare | ✓ | ✓ | | |
| 8. | Services | ✓ | ✓ | ✓ | ✓ |
| 9. | Basic Programs | ✓ | ✓ | | |

Source: Higher Education Statistics (2016).

Table 2: Number of Enrolment and Release of HEI Graduates

| Year | Entry | Enrolment | Produce |
|------|---------|-----------|---------|
| 2010 | 391,286 | 1,134,025 | 239,302 |
| 2011 | 366,079 | 1,056,547 | 280,928 |
| 2012 | 412,891 | 1,114,589 | 280,928 |
| 2013 | 373,209 | 1,156,293 | 273,893 |
| 2014 | 412,878 | 1,167,077 | 271,033 |
| 2015 | 511,154 | 1,236,164 | 289,794 |
| 2016 | 464,776 | 1,346,858 | 371,935 |

Source: Ministry of Higher Education Statistics (2010 - 2016).

The human capital development through education can be attributed to the ability to contribute to the economy indirectly through human's ability to acquire or create a career-based knowledge and skills.

The impact of balanced human capital according to current needs can result in positive economic growth and flourishing labor market through education programs and policies (Premand, Brodmann, Almeida, Grun, and Barouni, 2016). This could be reflected in the role of the university and other higher institutions as a place of generating new knowledge to be transferred to those who need it (Nasr and Boujelbene, 2014). According to Bellotti, Berta, De Gloria, Lavagnino, Dagnino, Ott, Romero, Usart, and Mayerd (2012), future products and employee markets are based on innovations that combine the services sector and other sectors in the industry capable of increasing the 70% Gross Domestic Product (GDP), reform labor market emphasis on employment protection and simultaneously produce cross - border technology and knowledge. By that, knowledge and skills are needed to focus on the production, technology and innovation development as global environment is changing through the Industrial Revolution 4.0. Innovation can also improve academic entrepreneurship among academicians in terms of technology, company support and development (Bhuiyan, and Ivlevs, 2019). Bharucha (2018) advocated for innovation in terms of commercialization of students' skills as university products to the macro society.

1.2 Statement of the Problem

Many scholars conducted different studies on entrepreneurship education cross different level of education in various countries but no study determined the focus group of entrepreneurship education. The need to improve entrepreneurship education among graduates is due to the increase in today's competitiveness, productivity and knowledge that require a holistic workforce (Grecu and Denes, 2017). Hence, incorporation of entrepreneurial education in the education system is as important as science education because products and services in developing companies become more efficient when entrepreneurship education is given consideration to elevate the staff career (Findler, Schönherr, Lozano, Reider, and Martinuzzi, 2019).

In addition, Gamede and Uleanya (2017), in their study, found out that the education system incapacitates improved economic growth through human resources due to poor entrepreneurship education. Da Silva, Oliveira, and De Moraes (2016) also discovered that the activity of a company in products and processes largely depends on the activity of the employee. This means that poor activities from employees lead to inefficiency and may yield to loss of desirable company output. It is important, therefore, to investigate studies related to entrepreneurship education so as to get the essence of researches conducted by previous researchers and determine the target groups of researchers on entrepreneurship education.

1.3 Purpose of the Study

This study aimed to identify the impacts and focus groups used in entrepreneurship education at various levels of education.

1.4 Research Questions

The following research questions were addressed in the present study:

1. What are the impacts of the entrepreneurship education from previous studies?
2. What are the target/focus groups of entrepreneurship education from previous studies?

1.5 Significance of the Study

The study is beneficial to higher education graduates, secondary school leavers, and members of rural communities. This is because entrepreneurship knowledge and skills can be utilized effectively with proper understanding of its content. Equipped with skills and knowledge beneficiaries of the present study can begin, sustain and survive their businesses. Karim (2016) importantly mentioned that, graduates and community members should aspire for four specific assets, namely: intellectual, personality, meta-skills and job specification from universities and communal academies. The combination of the four assets strongly help graduates and members of a community to identify and recognize opportunity, and itemize

market value need (Chell, 2013). Whereas Harrison, Burnard, Paul, (2018) revealed entrepreneurial leadership skills to include: technical/business skills, interpersonal skills, conceptual skills and entrepreneurial skills all come from entrepreneurship education and it is important to the upcoming generation and educators to make preparation towards becoming good human capital as well as versatile entrepreneurs.

3.0 Methodology

A. Research Design

The design of the study is meta-analysis (systematic review). A systematic review is a structured methodology being used to synthesize and update existing studies for improvement of teaching and learning. The systematic review is selected because entrepreneurship education falls within the area of teaching and learning.

B. Sample and Sampling Technique

16 relevant articles were accessed from online databases and journals. Focus group technique is used to sample three groups in the entrepreneurship education studies, namely: Higher Education (HE), Secondary Education (SE) and Rural Communities (RC). All publications obtained were recorded.

C. Instrumentation

Data collection and analysis are made from previous studies on entrepreneurship education. Articles were searched using personal computer (ideapad 320S) through electronic databases, namely Google Scholar, Library Genesis, Science Direct, Elsevier, Emerald Insight and JSTOR. Validation and reliability index of research instrument were not important in systematic review adopted in the present research. Descriptive statistics (percentage and pie chart) are employed to perform data analysis by the researchers.

D. Scope of the Study

The searching of literature was restricted to articles published within the scope of nine years (from 2010 to 2018). The study is also limited to the impact of entrepreneurship education. The following keywords were used to search for related publications: effective entrepreneurship, entrepreneurship in higher education, and entrepreneurship curriculum.

4.0 Results/Findings

The result of the present study is summarised and illustrated in table 3 for the three focus groups of entrepreneurship education studies.

Table 3: Analysis of Impact of the Studies and Focus Groups

| Author | Title | Impact of the Study | Focus Group |
|---|--|---|------------------|
| Ben, K.N., & Boujelbene, Y. (2014). | Assessing the impact of entrepreneurship education. | Entrepreneurship intention, employability, and competence have positive impact on the respondents. | Higher Education |
| Bellotti, F., Berta, R., De Gloria, A., Lavagnino, E., Dagnino, F., Ott, M., Romero, M., Usart, M., & Mayer, S. (2012). | Designing a course for stimulating entrepreneurship in higher education through serious games. | Entrepreneurship Serious Games (eSGs) provide conceptual basis for extending entrepreneurship education at lower school level using SG-experimental teaching plans. | Higher Education |
| Faress, M. B., Ivlevs, A. (2022). | Micro-entrepreneurship and subjective well-being: Evidence from rural Bangladesh. | On a positive note, female micro-borrowers experience increased satisfaction with financial security and achievement in life from poor and traditional context. | Rural Community |

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|---|---|--|---------------------------------|
| Goldstein, B. L., Ick, M., Ratang, W., Hutajulu, H., & Urasi, J. B. (2016). | Using the action research process to design entrepreneurship education at Cenderawasih University. | Action research process facilitates the integration of entrepreneurship education as compulsory curriculum subject at the university of Cenderawasih. | Higher Education |
| Din, B., Rahim, A. A., & Usman, M. (2016). | The effectiveness of entrepreneurship education program in upgrading entrepreneurship skills among public university students. | Significant impact on business plan, risk thinking, and self-sufficiency. While low impact on need for achievement and locus of control were advanced in this study. | Higher Education |
| Kirkwood, J., Dwyer, K., & Gray, B. (2014). | Students' reflection on the value of an entrepreneurship education. | Graduates gained increased confidence, ideation, entrepreneurship skills, and problem-solving skills in this study. | Higher Education |
| Lans, T., Blok, V., & Wesselink, R. (2014). | Learning apart and together: Towards an integrated competence framework for sustainable entrepreneurship in higher education. | Provide framework for sustainable entrepreneurship education in school-based environments. Highlight opportunity recognition and exploitation. | Higher Education |
| Moberg, K. (2014). | Two approaches to entrepreneurship education: The different effects of education for and through entrepreneurship at the lower secondary level. | Education focusing on non-cognitive entrepreneurship skills has a positive association with pupils' level of school engagement; it also has a negative association with their intentions of pursuing a career as self-employed. The opposite is true for education focusing on cognitive-oriented entrepreneurship skills. | Lower Secondary Education |
| Ndou, V., Mele, G., & Del Vecchio, P. (2022). | Entrepreneurship education in tourism: An investigation among European universities. | Positive impact on entrepreneurship target groups, content, teaching approaches/pedagogy, and stakeholders' involvement. | Higher Education |
| Premand, P., Brodmann, S., Almeida, R., Grun, R., & Borounu, M. (2016). | Entrepreneurship education and entry into self-employment among university graduates. | New tract of business training and personalized coaching for students on business and entrepreneurship skills, and personality dimensions. Option to graduate with a business plan instead of the traditional thesis is also offered. | Higher Education |
| Ruskovaara, E., Hamalainen, M., & Pihkala, T. (2016). | Head teachers managing entrepreneurship education: Empirical evidence from general education. | Promising impact, implementing entrepreneurship education in schools is independent of Head-teacher's gender, business experience, and work experience, but it is more affected by the Head-teachers' training in entrepreneurship education. | Lower Basic Secondary Education |
| Robinson, S., & Shumar, W. (2014). | Ethnographic evaluation of entrepreneurship education in higher education: A | Emphasis on personalized process that is rooted in practice and involves personal information. Students' centred | Higher Education |

| | | | |
|---|---|---|---------------------|
| | methodological conceptualization. | learning with teacher acting as a facilitator. Align students' expectations, content, and methods of teaching the courses. Reflection and learning from experience highly encouraged. | |
| Sufian, M. A. (2016). | Entrepreneurship education in an engineering curriculum. 7th International Economic and Business Management Conference. | Setting up student enterprise and cooperative society to provide essential goods and services to people on campus. | Higher Education |
| Testa, S. & Frasccheri, S. (2015). | Learning by failing: What we can learn from un-successful entrepreneurship education. | Students have understood ways in which personal knowledge may be used in self-employment. Followed by learning how to write business plans. | Secondary Education |
| Yaghoubi, J. (2010). | Study Barriers to Entrepreneurship Promotion in Agriculture Higher Education. | Need to expose university students to entrepreneurial thinking because the existing curriculum in higher agricultural education has been successful in developing entrepreneurship skills of graduates. | Higher Education |
| Zamperi, S. A., AbuBakar, A., & Ahmad, A. (2018). | An evaluation of teaching methods of Entrepreneurship in hospitality and tourism program. | Combination of several teaching methods in order to provide students with wide range of required skills and up-to-date knowledge. Increase students' awareness of entrepreneurship as a career possibility. | Higher Education |

5.0 Discussion of Results

Table 3 shows that 16 studies were obtained by the researchers about the impact and focus groups of entrepreneurship education. The result shows that out of the 16 articles, 6 articles (38%) discussed about impacts of entrepreneurship education in term of curriculum directly and indirectly. 5 articles discussed entrepreneurial benefits (31%); and another 5 articles discussed skills and knowledge with same percentage (31%) (see Figure 1). These discoveries; curriculum, skills and knowledge, and entrepreneurial benefit in the entrepreneurship education is a good feedback to the present study because with effective entrepreneurship education curriculum, students can develop their soft skills and generic skills besides technical skills to drive productive benefits in both public and private sectors.

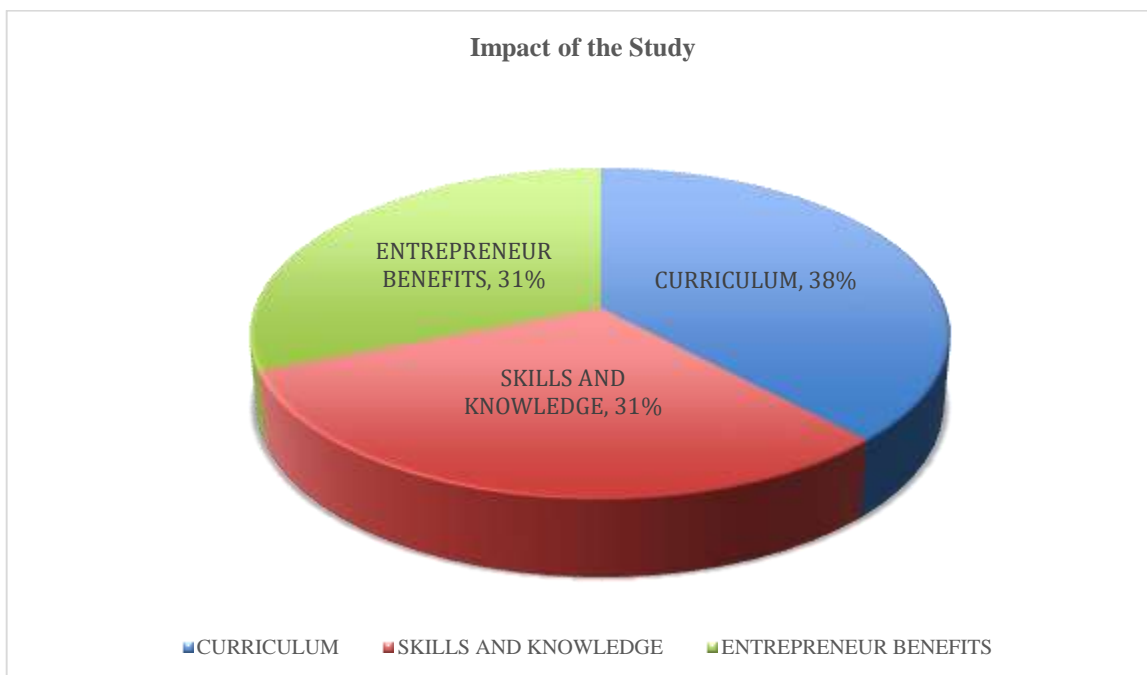


Figure 1: Impact of the Study.

The findings of this study agree with the discoveries of Ojo (2016) who conducted an empirical study titled Development of Entrepreneurship Skills in Furniture Making of Technical College Graduates to Enhance Economic Stability in Nigeria: Evidence from Kogi State. Similarly, the findings of Adoritimi (2014) and Obiama (2014) also revealed that transferring entrepreneurship skills and knowledge into curriculum and rural communities yield entrepreneurial benefits in terms of self employment and poverty reduction especially in Africa. This finding is supported by the discoveries of the present study.

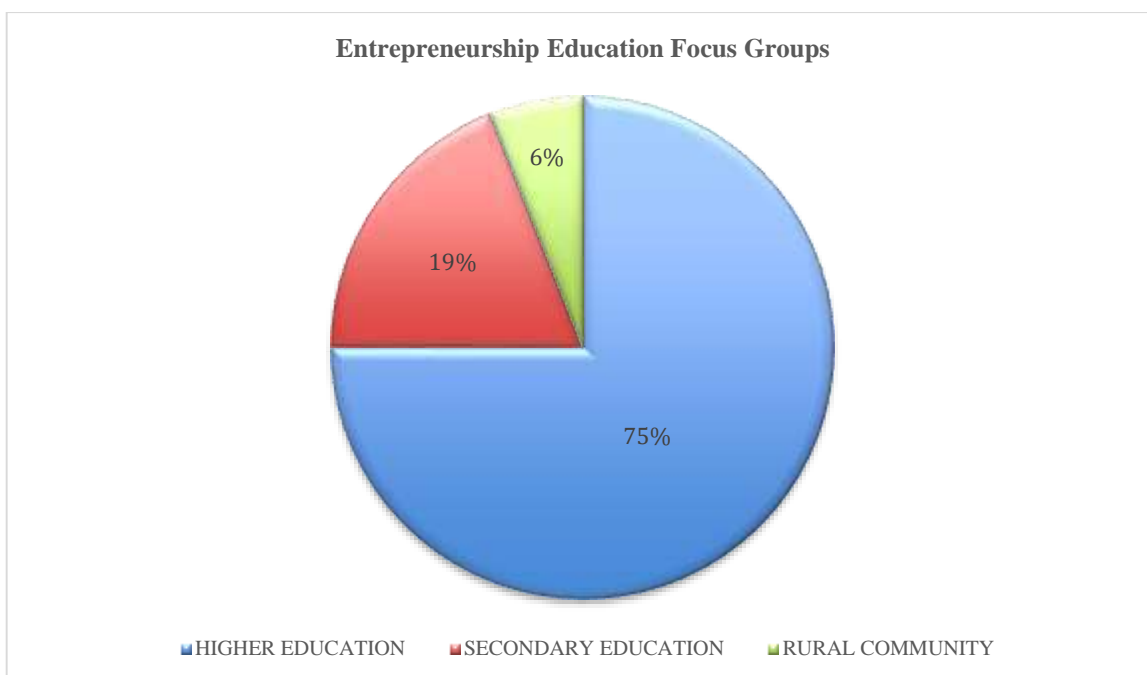


Figure 2: Entrepreneurship Education Focus Group.

Figure 2 shows the focus groups of entrepreneurship education from 16 articles. 12 articles of entrepreneurship education discussed about Higher Education, HE (75%), 3 articles (19%)

discussed implementation of entrepreneurship education in secondary education and only 1 article (6%) discussed implementation in rural community. Studies for the rural community is very limited because most of the researchers focused on Higher Education to prepare graduates for job creation.

6.0 Recommendations

The following recommendations are advanced in the study:

- i. At present, Industrial Revolution 4.0 is influencing economic, social and educational settings directly and indirectly. This is due to technological developments that allow the exchange of data and information between equipment and components at one time to show current conditions for production, energy consumption, materials movement, order and customer feedback, supplier information and so on. Therefore, entrepreneurship education is recommended for easy technology transition into the industry as this will create new job through the new skilled workers, despite projection in wage increase.
- ii. Secondly, entrepreneurship education research should be undertaken as important to help researchers to improve the curriculum and prepare effective human capital. Because previous studies indicated that entrepreneurship education has influence on the economy, stakeholders from society and the natural environment for sustainable development. This influence is otherwise called Reverse on Investment (ROI). For SMEs, ROI is considered as education training for increase quality and productivity of an industry.
- iii. It is also recommended to initiate and maintain national cooperatives, institutional regulatory environment and economic market environment for promoting entrepreneurs' activities. This means, other researchers have to extend the study in entrepreneurship education for SMEs training besides Higher Education (HE), Secondary Education, and Rural Communities. However, it is easy to find researches in HE and secondary education because entrepreneurship education is compulsory in some curricula.

7.0 Conclusion

The role of the education sector is crucial in supplying skilled workers, whereas entrepreneurship education is a part in the curriculum for students and also for SMEs. However, it's still lacking general business knowledge and need more research in this topic area. A good education system will affect the value of good worker in an industry. A study in entrepreneurship is important because it will increase students interest in the subject, improve enterprise curriculum beside skills and knowledge. Curriculum used to fulfil the needs of a country in producing manpower. Therefore, more studies are needed in the area of curriculum especially in enterprise education. With entrepreneurship education, the plan is not just to produce manpower, but also to create ability and mind-sets for self-employment. For entrepreneurial benefits, with business simulation, students will practice leadership; how to make decision making; and negotiation. This will significantly contribute to graduates' self-confidence. Similarly, increasing entrepreneurial interest among community members is achievable via new pedagogy approach like social media as a good medium to educate community members about business education. However, adequate researches need to be conducted to prove this point of view.

However, the focus groups identified in this study included: higher education, secondary education and rural communities. This means, entrepreneurship studies have reached out beyond curriculum implementation and has impact on national GDP through Small and Medium Enterprises (SMEs) activities. Entrepreneur education for SMEs is synonymous with training, as much as entrepreneurs get knowledge and skills from the training to maintain their businesses.

8.0 Acknowledgement

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