

# Online Innovation of Business Start-up Training for Marginalised Communities via MOOCS

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The 21st century has seen the emergence of successful business start-ups such as Facebook and Uber. Yet, according to UNESCO, marginalised communities are socially excluded due to socio-economic disparities and large income gaps. Business start-ups are among the alternatives that could enhance social-economic conditions. Previous studies have indicated that these communities are left behind in business start-ups as they lack proper education and training in strategic management of business start-ups. Previous studies have also indicated that massive open online courses (MOOCs) could be potentially used to assist them to have access to knowledge on business start-ups. Thus, this study investigates factors of successful strategic management of business start-ups for marginalised communities via MOOCs by using the interpretive structural modelling approach. Findings indicate that the most important factor of business start-up for marginalised communities are business networking and social support. The study produced a model that could be useful for future researchers in the area of strategic management of business start-ups for marginalised communities via MOOCs.

**Keywords:** *Strategic management, business start-ups, massive open online courses, underprivileged communities, interpretive structural modelling.*

## Introduction

In the 21st century, the avenue of technology has sparked the rapid emergence of multi-million-dollar start-up companies such as Facebook and Uber. The field where one starts up a new business venture is termed as a business start-up (Bagautdinova, et al., 2016; Lecuna et al., 2017). Yet, UNESCO (2016) reports that marginalised communities are socially excluded due to socio-economic disparities and large income gaps. Business start-ups are among the alternatives that could enhance social-economic conditions (Bach et al., 2013; Lecuna et al., 2017).

In Malaysia, a similar scenario is seen where marginalised communities are socially excluded. Among the marginalised communities of Malaysia are the Below 40 or 'B40' that refers to households with an income of up to RM3,855. The Malaysian Economic Planning Unit (EPU) reported in its strategy paper on "elevating B40 household towards a middle-class society" that the B40 communities are still facing several issues regarding socio-economic disparities and lack of entrepreneurship skills. With regards to socio-economic disparities, there is still a large income gap between the B40 communities and T20 income households, where the B40 mean income was RM2,537 in 2014, while T20's income was RM14,305. In terms of lack in entrepreneurship skills, EPU has reported that entrepreneurship training has been provided for the B40 community – yet, the B40 communities have not been able to increase their income due to lack of entrepreneurship skills related to inability to exploit economies of scale and access to technology and innovation. Moreover, B40 communities are mostly engaged in micro and small enterprises which emphasise low-end activities such as manufacturing, wholesale and transportation (EPU, 2016). In relation, there is a category of B40 communities which are in need of support in terms of entrepreneurship education as well as IT literacy (Bach et al., 2013; Thompson et al., 2014).

A potential solution to address this problem is the use of massive open online courses (MOOC) based learning (Adnan & Ritzhaupt, 2018; Hamdan et al., 2018; Norman et al., 2018; Yunus et al., 2018). This type of learning allows marginalised learners to access learning via online courses with a massive collaborative community. Implementation of such a learning approach could create a learning support community, in which marginalised communities could interact among other communities as well as experts to improve their skills in business start-ups. This could further lead to marginalised communities to create start-up businesses which in turn could solve issue related to socio-economic disparities, large income gaps and lack of access to education (al-Atabi & DeBoer, 2014; EPU, 2016).

Previous studies have reported that limited studies have investigated MOOC-based learning models on business start-ups, especially for marginalised communities (UNESCO, 2016;

Lecuna et al., 2017). Global studies on business start-up entrepreneurship models include studies by Edelman et al. (2010) where they investigated the business start-up motivations and growth intentions using expectancy theory and entrepreneurship concepts. Local studies on entrepreneurship models included a study by Al-Atabi and DeBoer (2014) where they studied teaching entrepreneurship using MOOCs. Yet, although there are some frameworks that have been developed, there is a lack of models for MOOC-based learning models on business start-ups tailored for marginalised communities.

With regards to related studies on MOOC design, Nordin et al. (2016) discovered that the development of a MOOC-based learning content and tasks can be influenced by several factors such as structure of learning tasks and learner autonomy. In another related study, Norman et al. (2015) found out that there is a connection between online learning and learners' participation level in learning. The results show that the use of online learning technologies could increase learners' participation level in learning (Norman et al., 2015). This could be useful in providing access to knowledge for marginalised communities on business start-ups via MOOCs.

In relation, previous studies have also indicated that MOOCs have been discovered to promote entrepreneurial skills (Evans & McIntyre, 2014; Pinuel, 2014). Pinuel (2014) reported that MOOCs have been utilised as a platform for community-based and individual-based learning from unemployed youth from Spain, Portugal, and Latin America, where the MOOC has currently more than 38,000 users. The MOOC initiative is a collaboration between the Centre for Virtual Education (CSEV), Telefónica Learning Services, Santander, UNED (National Distance Education University of Spain), and the Centre for Mobile Learning, MIT (Massachusetts Institute of Technology). It has also been reported that the MOOC allows the users to develop a deeper participation in the community in order to facilitate interactions among them and promote an exchange of knowledge and ideas and learning regarding entrepreneurship (Pinuel, 2014). In another study, Evans & McIntyre (2014) reported that current designs for a relatively well-prepared student does not focus on the needs of underprivileged students. Thus, in this study, to solve the described problems and issues, we produced a model of strategic management of business start-ups for marginalised communities via MOOCs.

## **Methodology**

This study employed interpretive structural modelling (ISM) using a computer-assisted session for qualitative model development on strategic management of business start-ups using massive open online courses (MOOCs) for underprivileged communities. The method is an approach for identification and summarisation of relationships among specific variables, which define an issue or a problem. The approach serves as a platform in which a group of

experts collectively make decisions on the complexity relationships among variables of a system. The approach uses a binary matrix, built by the group of experts' answers to consecutive questions posed by a computer software. Here, the set of related variables affecting the system are structured via analysis into a comprehensive systemic model, which visualised the structure of a complex issue in a system of a field of study (Srivastava et al., 2016; Tuan, 2017). The process involves four steps (Tuan, 2017), which are: *idea generation*, *clarification of generated ideas*, *structuring the generated ideas*, and *interpreting the produced model*.

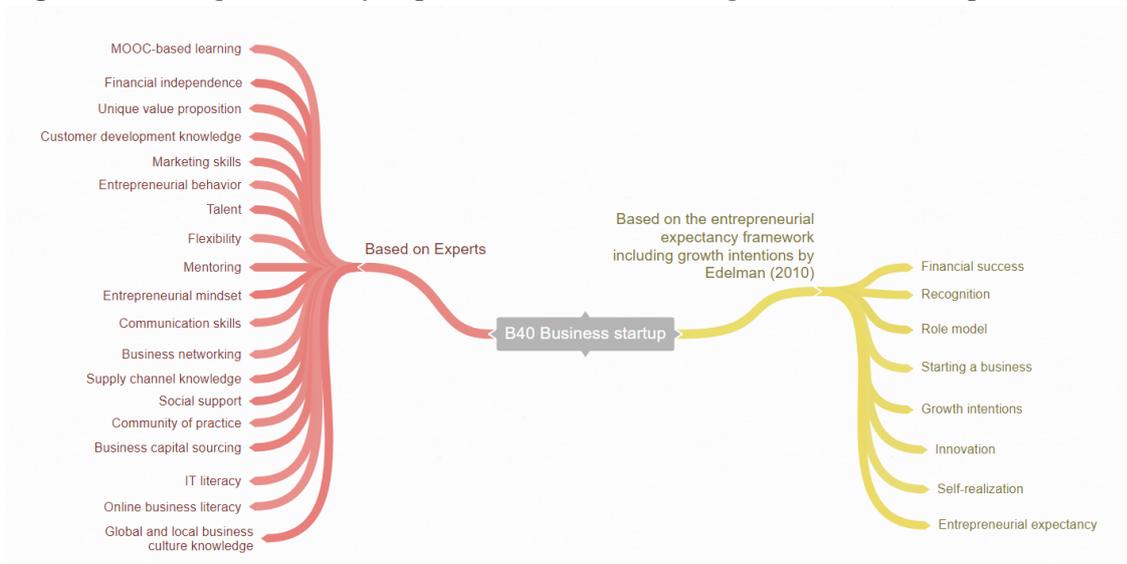
The *idea generation* process is aimed at motivating the group of experts to produce elements of a system. The process is initiated by posing a triggering question based on the issue of business start-ups for underprivileged communities. The *clarification of the generated ideas* process is to promote mutual understanding of the generated ideas among the experts. This is done to make sure that the understanding of the words used in sessions are understood mutually by everyone involved. This helps to reduce ambiguity among the words used in the sessions. Here, the experts collectively review the generated ideas and make necessary changes. This step is conducted with the Nominal Group Technique for the identification of important ideas for modelling. The *structuring the generated ideas* step involves the completion of a binary matrix by the expert group based on the collective votes on the relationship between a pair of consecutive system elements that are posed. The votes determine whether the experts agree or disagree with the existence of a relationship between two elements, which is then inputted in the binary matrix. The matrix infers the existence between system relationships and a diagram can be visualised from the matrix – illustrating the behaviour and relationships of the system in question (Tuan, 2017). In the last step (*interpreting the produced model*), the produced model is reviewed via the ISM session. The interpretation is normally described by the experienced facilitator who can interpret the diagram and document the interpretation. During this process, the model can be revised by voting (Tuan, 2017).

## Results and Discussion

The *idea generation* step involved four chosen experts, who were: a government delegate from the Economic Planning Unit specialising in marginalised communities, an instructional technology expert, a professor in marginalised economy and a professor in retailing. The session was carried out by using an online collaborative mind-mapping software named Coggle. The triggering question was “in terms of your experience, please list major factors of strategic management of business start-ups using MOOCs for the marginalised communities.” The triggering question was guided with eight pre-determined factors based on the Entrepreneurial Expectancy Framework including Growth Intention by Edelman (2010). Initially, the experts agreed with the pre-determined factors and generated 18 factors.

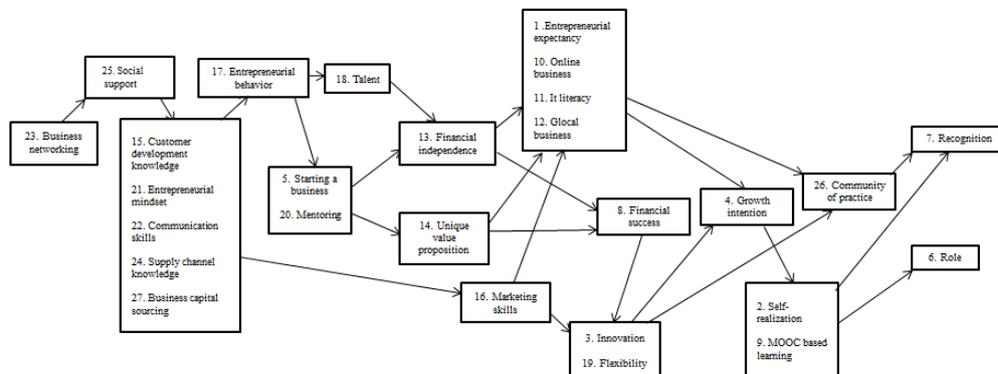
In the *clarification of generated ideas*, some ideas were rephrased (e.g. family support to social support), merged and added (i.e. business capital sourcing) using the online collaborative mind-mapping tool. The final factors were increased to 27 factors, as illustrated in Figure 1.

**Figure 1.** Ideas generated by experts in Clarification of generated ideas step



In the structuring the model step, Concept Star was used for structuring the model. The software assists groups of experts in defining existence of conceptual relationships between a pair of generated variables or concepts. It is carried out via a series of concurrent questions. The defined contextual question was “In order to strategically manage a successful business start-up for marginalised communities in MOOC-based learning, variable A is more important than variable B.” Concept Star iteratively poses different variants of the variable using the contextual question for the discussion among experts on the existence of relationships between the posed variables. The discussion continued until the experts answered all the questions posed by the software. The model generated by the software is illustrated in Figure 2.

**Figure 2.** A model of strategic management on business start-ups using massive open online courses for marginalised communities



In *interpreting the model* step, all of the arrows in Figure 2 represent the relationship of “more important than.” The model reveals that the most important factor in strategically managing a successful business start-up for marginalised communities in MOOC-based learning is *business networking* and *social support*. This is line with Lecuna et al. (2017), where they characterised that successful business start-ups are driven by aspiring entrepreneurs that have individualised capabilities known as knowledge, skills, and abilities – where *business networking* is among the important factors that drive business start-ups. Additionally, *social support* was discovered to be among the important factor of successful business start-ups. This can be related to a clinical study on new business ventures by Craft et al. (2015), where they found that social support is important for business start-ups.

The model shows that *starting a business* is coupled with *mentoring* indicating that a successful business start-up for marginalised community would need mentoring when starting up. In addition, the model reveals that factors to the left, such as *customer development knowledge*, *entrepreneurial mindset*, *communication skills*, *supply channel knowledge*, *business capital* and *entrepreneurial behaviour* are important factors before starting up new businesses. Furthermore, the model also suggests that when starting up a business, *financial independence*, *unique value proposition*, *marketing skills*, *entrepreneurial expectancy*, *online business*, *IT literacy*, and *global business* are important factors.

The right side of the model illustrates the factors after which the start-up business achieves *financial success*. Upon *financial success*, only then there is consideration for *innovation* and *flexibility* of the business as well as business *growth intention*. Interestingly, this seems to be in contrast with the Entrepreneurial Expectancy Framework including Growth Intentions by Edelman et al. (2010) where they discovered that *growth intentions* lead to *financial success*, where in this study, it was vice versa. This is probably due to the influence of geographical and cultural diversities, in which the study by Edelman et al. (2010) was conducted with



Americans in North America, whereas this study was carried out with Malaysian in South East Asia that could have different business start-up cultures.

### **Conclusion and Recommendations**

The study investigated on the strategic management of business start-ups using Massive Open Online Courses (MOOCs) for marginalised communities and produced a model consisting of 27 factors that could assist future researchers and educators in the field. The findings of the study revealed that several factors such as business networking and social support are important before starting up a business in marginalised communities. The results also revealed some interesting findings contrasting the literature, in which financial success seems to be more important than growth intention for start-up businesses of marginalised communities. The study also applied a new approach for the Nominal Group Technique, where online collaborative mind-mapping was applied. This approach could be useful for future researchers conducting ISM in promoting mutual understanding of investigated factors in idea generation phases.

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