

# The Role of University in Forming International Collaborations: what can We Learn from the West

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## ABSTRACT

With globalization, threats by the entry of foreign firms are inevitable, and firms are pushed to continuously innovate to remain competitive in the ever-evolving market. To remain innovative and counter the threats from foreign firms, be it product or services, local firms start to seek international collaborations. Through international collaborations, local firms then have access to technology and knowledge for innovation. Existing research has indicated that smaller businesses are less able to form international collaborative innovation owing to their limited capability. While the extant literature focuses on the role of government in fostering innovation, less is known about the role of university, more so on what Indonesia can learn from the West. This research adopts qualitative research method with longitudinal data covering a duration of 4 years. Using a government funded innovation program run by Lancaster University in United Kingdom (UK), we provide preliminary result analysis as a basis to work further to contribute to our knowledge on international collaborative innovation.

*Keywords: Innovation, International, Collaborations*

## 1. INTRODUCTION

Globalization is ubiquitous, the trend brings opportunities, as well as threats. Facing threats from the ever changing market landscape brought upon from globalization, firms seek to attain sustained competitive advantage by constantly innovate [1]. In achieving constant innovation, firms seek collaborative innovation to tackle resource constraints, where collaborative innovation allows firms to tap into resources needed from other organizations [2]. On one hand, globalization is a threat because the entrance of foreign firms brings in fierce competition, on the other hand, it opens up opportunities for international collaborative innovation [3]. Moreover, with the trend of globalization, more and more firms are using international collaborative innovation as a means for internationalization, entry into a foreign market by forming collaborative innovation with a local organization [4]. Thus, the benefit of international collaborative innovation is two folded: [1] it provides local firms access to resources that are otherwise not available locally, such as financial capital, technology, and knowledge; [2] it facilitates internationalization, allowing access to new market.

However, forming international collaborative innovation can be daunting for small businesses as they lack the network and resources [5]. Unlike the more established organization, small businesses often do not have enough financial resources, human capital,

and existing network to seek potential collaborator in forming international collaborative innovation. Thus, many small businesses and small and medium enterprises (SMEs) seek government and institutional support in forming international collaborative innovation, in particular, government funding from government and institutional supports from universities [6].

In this paper, we seek to contribute to our understanding on how universities as institutions can support small businesses in forming international collaboration innovation and what we can learn. This paper uses a case study sampling on Lancaster China Catalyst Program (LCCP), a unique two-year stage-based innovation program funded by UK and Chinese governments that aims at facilitating UK firms to set up and develop collaborative innovation with Chinese organisations.

## **2. LITERATURE REVIEW**

Leaning on resource dependency theory (RDT), firms look externally for the resources that are not available internally for innovation activities [7]. In fact, RDT points out that it is almost impossible for firms to self-sustain for all the resources required for innovation, thus the need to collaborate with external parties to obtain resources needed. This is especially the case for small businesses as they often face resource constraints in comparison to larger organizations [8]. In this paper, I define such activity of collaborating with external parties to obtain resources needed for the purpose of innovation as “collaborative innovation” [9]. Collaborative innovation involves the exchange and sharing of resources between organizations, such resources include financial capital, information, knowledge, and technology [10]–[12]. In such voluntary agreement, each of the organizations still own the resources respectively, and the resources are shared for the specific agreement within the specified timeframe. We refer to the involving parties as organizations instead of firms to include a wide range of collaborating partners, such as private firms, public institutions, government bodies, universities, and laboratories.

Institutional theory posits that firms are structured in a similar way to gain and maintain legitimacy [13], [14]. This can be seen from how firms have formal structure with management and governance. Other than formal structure, firms also seek legitimacy through collaborative innovation [15]. Firms gain legitimacy in the eyes of the public through the formation of collaborative innovation, because the ability to form collaborative innovation shows the firm’s capability in managing innovation project(s), possess valuable resource(s) to be an attractive collaborator, and the firm gets pass the scrutiny from governance point of view to be a legitimate collaborator.

## **3. METHOD**

Existing research is scant on the role of university in forming international collaborative innovation, especially in the context of Indonesia. Thus, we adopt case study design approach [16], sampling on an innovation program led by a university in the UK to provide in-depth understanding and what can be learned by institutions in Indonesia. This approach is particularly appropriate in understanding the relationship between the formation of collaborative innovation and institutional support in the international setting [17].

This longitudinal study includes both real-time observation with both of the authors being participant observer and retrospective data uniformly collated and stored in the archive. The

research approach is multi-level approach, generating insights from institutional level, program level, collaboration project level, and firm level. Following the grounded theory approach, we started with observing and making sense of the general patterns following the timeline from start to the end of the program to identify the causal relationship [18], [19].

### **3.1 Empirical Setting**

LCCP is an innovation program funded by multiple government bodies in both UK and China. The program has teams both in the UK and China to support the creation and development of international collaborations involving research and development (R&D) between UK firms and Chinese organizations for the purpose of developing new products/services. LCCP supports the participating UK firms at the early stage by matching UK firms with potential Chinese collaborators based on the proposals from the UK firms. Along the process of the 2-year program with LCCP, Master of Science in International Innovation students are assigned to the collaborative projects formed by UK and Chinese organizations as graduate consultants. The students will first work locally in the UK for 4 months to understand from the UK perspective, and then in China for another 4 months, combining perspectives from both UK and China. The innovation program is well suited to sample on, as it provides a nuanced process view, providing in-depth understanding of the process from multiple levels.

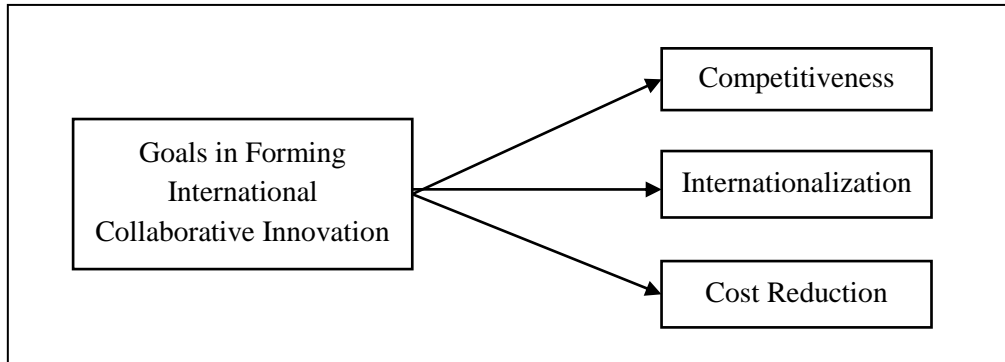
### **3.2 Data Collection**

Initiated in 2014 and ended in 2018 with three successful cycles, LCCP was a progressive, staged-based program that assisted UK firms to form collaborative innovation with Chinese organizations over the duration of 2 years. The sampling was based on the whole of the program across four years with three cycles to gain a holistic view on the role of the university in fostering the formation of international collaborative innovation. As active participants, we closely observed the program from the beginning in 2014 until the closure of the program in April 2018. Our primary data consists of direct observation on the program, active engagement with various stakeholders, and internal documents.

## **4. RESULT AND DISCUSSION**

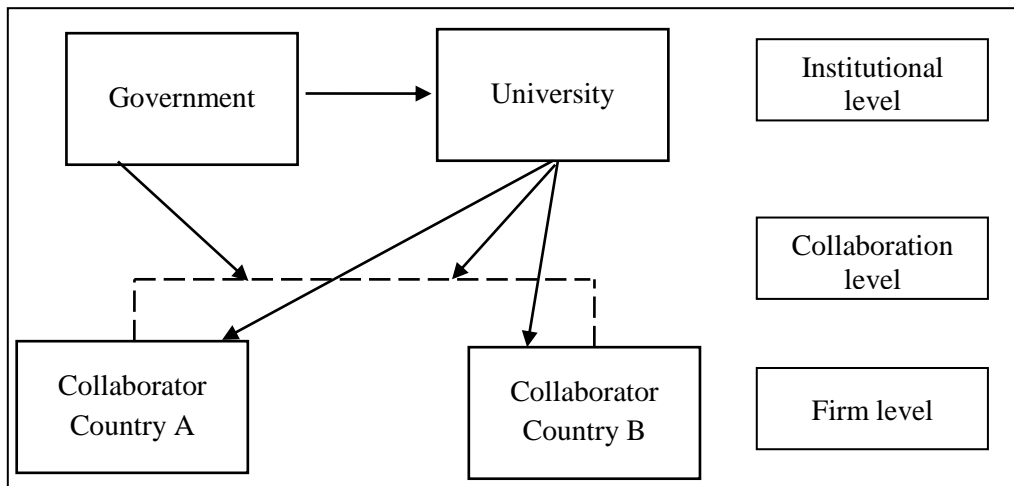
The participating UK firms in LCCP consist of entrepreneurial startups, small businesses, and SMEs. The common theme for participating in LCCP was for the purpose of developing new product(s)/service(s) to remain competitive in the home market, internationalization, and cost reduction (Figure 1). One of the participating UK firms expressed that they have seen an increase in new products introduced to the UK market by foreign firms, particularly from Asia. The firm expressed the concerns for them to remain competitive amid the entry of foreign products as these foreign firms often do not go through the proper process of import procedure and avoid tax by omitting official company registration in the UK. Thus, to remain competitive in the home market, these UK firms need to develop new products incorporating new technology and at the same time conform to local needs. On the goal of internationalization, the UK firms expressed that they can't just sit around and wait for foreign firms to enter their home market, but they see the need to penetrate new market internationally. However, the long-term success of entering a new market is not merely by importing the existing product but incorporates local adaptation. Thus, UK firms seek to collaborate with

Chinese firms to have join R&D efforts to develop/modify product(s) that suits the local needs in the Chinese market. Last but not least, UK firms also endeavor to reduce costs by combining their technology with production facilities in China.



**Figure 1.** Goals in Forming International Collaborative Innovation.

Preliminary analysis shows that though these firms have goals in mind, due to resource constraints, they often do not know where to start. This is due to a number of factors, mainly, insufficient information, lack of network, lack of resources, unfamiliarity with Chinese regulations, and culture barriers. Our data shows that, even UK firms who have prior connections with Chinese organizations through sourcing products still find it difficult to establish a collaborative innovation project on their own. Thus, we propose to poke further into the role of university at the institutional level (**Figure 2**).



**Figure 2.** The Role of University in Formation of International Collaborative Innovation.

## 5. IMPLICATIONS

### 5.1 Research Implications

Existing research focuses mainly on the role of government at the institutional level, along with the causal relationship between the availability of government funding and innovation output, due to government being the largest funding bodies for collaboration projects and government policies in fostering innovation [20], [21]. Thus, overlooking the role of university at institutional level, where universities can act as an effective medium in fostering innovation by providing resources, knowledge, and technology.

### 5.2 Managerial Implications

Facing threats from globalization, firms need to respond and act swiftly to be able to maintain competitiveness. To mitigate risk and overcome resource constraints, firms should look out for institutional supports such as government funding, or tap into resources owned by universities, including knowledge and students as added manpower. Indonesian government can consider providing funds to university to run program like LCCP. In this way, university program can manage better in screening the firms to receive funding, as well as utilizing various resources within university to assist firms throughout the process: formative stage, on-going stage, and product testing stage.

## 6. CONCLUSION

This manuscript is still a work in progress which we used data collected during the duration of 2014 to 2018, based on a government funded innovation program run by Lancaster University in the UK, providing some preliminary analysis in hope to have an initial direction for further analysis on the role of university in international collaborative innovation.

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