

University-Industry Collaboration (UIC) for social enterprise: A design thinking approach

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Abstract

Social enterprises are seeking to engage with external stakeholders to increase their innovation capabilities and accordingly strengthen their competitiveness. It has been suggested that involvement in university-industry collaboration (UIC) could be an effective approach to meet their needs, with several recent studies highlighting the role of design thinking in facilitating such projects. However, it remains unclear how design thinking is strategically fitting into the collaboration process. In the light of which, this study intends to investigate how design thinking can be successfully employed in UIC projects to support social enterprises by conducting case study toward two university-industry collaboration projects between University of Manchester and two UK social enterprises (Plastic Shed and EMERGE). It is expected that key findings derived from this study would enable us to depict a theoretical and practical framework of how design thinking can guide knowledge transfer or co-creation to achieve blended value (economic value and social value) and to create mutual benefits to these two dedicated sectors (universities and social enterprises). The study will also provide management insights concerning enabling factors and barriers in UIC projects dedicated to social enterprises.

Key words: UIC (University-Industry collaboration), social enterprise, design thinking, collaboration process

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Introduction

Social enterprises are playing an increasingly important role in combatting social issues and generating social benefits to our society. They create social solutions that are supported by a profitable business model, allowing them to generate long term impacts for society. The effectiveness of the social solutions heavily relies on the social enterprise's innovation capabilities which refers to corporate abilities on creating new products or services, a new production process or a new business model (Bansal et al., 2019; Scuotto et al., 2022; Tykkylainen and Ritala, 2021). Social enterprises with innovative offerings tend to be more competitive and resistant in uncertain or deprived markets where social enterprises are often positioned, which would contribute to fulfilling their strategic goals (i.e., addressing social needs) (Mooijman et al., 2021).

Social enterprises are suggested to collaborate with universities to broaden their knowledge base to nurture innovation capabilities (Chou, 2018). University industry collaboration (UIC) is a valuable approach to transfer knowledge and create mutual benefits for academia and firms. Compared to other organisations such as private companies, universities tend to provide opener access to their knowledge base at a lower cost. From which, social enterprises would be significantly benefitted as they often encounter shortages in terms of accessible partnerships and funding in operations. Meanwhile, by collaborating with social enterprises, universities would fulfil their commitments to sustainable development in a more comprehensive way as their support for social enterprises will directly contribute to solving social issues that are closely related to Sustainable Development Goals (SDGs).

Research has further indicated that design thinking can be employed, either consciously or subconsciously, to promote social innovation in UIC projects and accordingly to support social enterprises (Chou, 2018). Despite fruitful research outcomes in the UIC area, design thinking perspective is barely adopted especially for social enterprise sector that stresses hybrid corporate missions (creating economic values and social values), with some efforts from design perspective (Selloni and Corubolo, 2017) rather than management perspective. It remains unclear how knowledge is transferred and/or co-created to increase innovation capabilities of social enterprises and consequently boost social innovation. To bridge this gap, we plan to conduct case studies of collaborative projects between the University of Manchester and two UK based social enterprises to investigate how the collaborations between social enterprises and universities proceed through the lens of design thinking.

Results derived from the case study will enable us to construct a UIC process devoted to the social enterprise sector, which is underpinned by design thinking methodology. With the novel lens of design thinking, we believe that this study will contribute to social enterprise area by creating new knowledge regarding how social enterprises can increase their innovation capabilities through collaborations with universities. It will also contribute to UIC area by introducing shared value into the collaboration process. Management practice insights such as enabling and barrier factors to facilitate such collaborations are also expected to emerge to inspire involved parties (e.g., social enterprise organisations and academic institutions).

Preliminary literature review

Social enterprise

Social enterprises distinguish themselves from traditional commercial enterprises by prioritising social missions over economic missions (Austin et al., 2006). They also differentiate themselves from traditional not-for-profit organisations that lack a sustainable business model to constantly generate social benefits. Social enterprise is a natural programme fit for organisations with high compatibility between business and social missions. The dual missions are curved in the DNA of social enterprises without equal proportions (Kickul and Lyons, 2020). Business models of social enterprises enact hybrid missions by capturing triple-bottom-line value (Davies and Doherty, 2019). This mechanism provides an innovative corporate strategy that links social purposes with demands and supplies in market (Porter and Kramer, 2019).

Although social enterprises have been portrayed as an innovation solution to counter social issues, most social enterprises barely propose innovative offerings apart from a more generous business model that distributes a proportion of earnings to disadvantaged groups (Kamaludin et al., 2021). In our view, this could severely hamper social enterprises from realising their strategic missions especially at this time when they are extending to compete in profit driven sectors where technology and innovation dominate the business world. It is of great necessity for social enterprises to think about how to engage with innovative practices to create new offerings like innovative products and services and how to achieve sustainability while improving corporate competencies via offering innovative propositions, which extant research have merely talked about (Del Giudice et al., 2019).

University-Industry collaboration (UIC)

It has been commonly acknowledged that universities are playing a pivotal role in solving socio-economic problems by engaging with external stakeholders and society to generate, use, apply and exploit knowledge (Ssebuwufu et al., 2012). University-industry collaboration is a popular approach adopted by universities to fulfil the meaningful role has attracted great interests from scholars, giving rise to a variety of research discussions in this area (Nsanzumuhire and Groot, 2020).

Prior studies have identified benefits proposed in UIC and distinguished them into firms' benefits and universities' benefits (da Cunha Lemos and Cario, 2017). Regarding firms, both short term benefits in terms of increased quality and long-term benefits related to the increase in innovation capabilities are evident. It has been emphasised that UIC create a supportive environment for firms to increase their knowledge content and nurture new ideas, which is perceived the most important rewards by firms in emerging UIC countries such as China and Korea (Arza et al., 2015). As for universities, economic benefits associated with resources and equipment are derived while intellectual benefits relating to learning, teaching and researching are also proposed (De Fuentes and Dutrénit, 2012). To ensure these benefits are realised and purposes of UIC are well achieved, scholars have cited some enabling factors and barriers that

have impacts on the success of UIC projects. For example, lacking understanding toward the industry that universities are working with is considered an undermining factor to UIC in both developed and developing countries (Nsanzumuhire and Groot, 2020). Without comprehensive understanding, conflicts with companies are likely to arise and jeopardise the collaboration relationship. On the contrary, sufficient understanding among involved parties (including intermediate organisations such as sponsor providers) are beneficial for developing effective communications and build trusted partnerships.

Design thinking

Design thinking is defined as “a human-centred innovation process that emphasizes observation, collaboration, fast learning, visualization of ideas, rapid concept prototyping, and concurrent business analysis (Lockwood, 2010)”. Design thinking fundamentally supported by design theory has been widely applied in management area to deal with challenges in terms of project exploration, stakeholder management and strategy formulation (Mahmoud-Jouini et al., 2016). Yet its application in social enterprise sector for promoting social innovation is understudied (Chou, 2018), and tends to be from a design rather than management perspective (Selloni and Corubolo, 2017).

To conclude, social enterprises can seek opportunities from UIC projects to increase their innovation capabilities. Design thinking approach that aligns problems with solutions is deemed to be an effective strategy in this collaboration process to boost social innovation. Yet it lacks empirical evidence to demonstrate the applicability and effectiveness of employing design thinking in UIC project to support social enterprise and to generalize a replicable practice pattern of social innovation. Thus, we present an initial conceptual framework for this research project (see Figure 1), based upon which our inquiries are built.

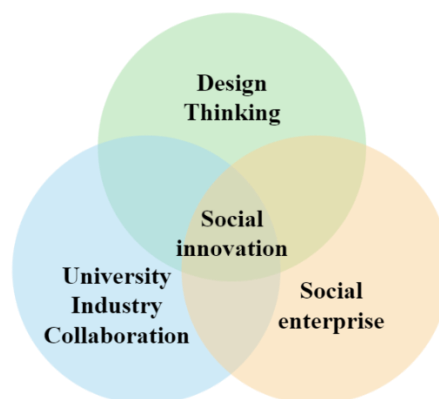


Figure 1: Conceptual framework

Research design

To address the inquiries mentioned above, this study intends to employ a qualitative approach conducting case study toward two UIC projects involving a research hub affiliated to the University of Manchester and two social enterprises. This approach allows an empirical analysis of UIC process in social enterprise sector, exploring the nature of knowledge transfer

and/or co-creation process via ‘how’ and ‘what’ questions (Yin, 2009).

Project participants

SMI hub (<https://smihub.ac.uk/>)

The Sustainable Materials Innovation Hub is a local innovation program which helps businesses across Greater Manchester create sustainable solutions for plastics use and waste management. The program is partly funded by the European Regional Development Fund so that it can provide free support to SMEs based in Greater Manchester. The support includes three overlapping services spanning from free advice to longer term collaboration projects: a). free environmentally sustainable advice for companies looking to make a change in their use of plastics; 2). performing materials assessments on your products and components to inform for sustainable choices; 3). developing new sustainable polymers for market, improved methods of recycling, and validating emerging sustainable materials.

Social enterprise 1: Plastic Shed (<https://www.plasticshed.org/>)

Plastic Shed is a community based social enterprise in Stockport UK, working on issues around plastic pollution. They offer various options for people (especially those from local community) to get involved with reusing plastic waste locally. They take ‘donations’ (e.g., plastic bottles) from community to recycle waste. And they work with people in the community to turn plastic waste into new useful things (e.g., accessories, art decorations and combs). By engaging people in the workshops where they make new products (e.g., wallets, lunch box bags, and earrings) with recycled materials, the company helps to strengthen community cohesion, empower people to act and support individuals' health and wellbeing as they get creative with the materials and contribute to a meaningful project.

Social enterprise 2: EMERGE (<https://www.emergerecycling.co.uk/>)

EMERGE Recycling is a social enterprise founded in 1996 when it started as a community business. After years of development, the company has expanded into a hybrid organisation comprising of two legal entities, namely EMERGE Recycling and EMERGE 3Rs. EMERGE Recycling cater to customers with greater waste management needs (e.g., business waste, confidential shredding, food waste and waste electrical equipment) by providing waste management services to a variety of customers (e.g., business, schools, the NHS and local government). EMERGE 3Rs is an environmental charity which promotes the idea and practice of resource conservation, and it also helps to alleviate food waste and fight food poverty by operating ‘Fare Share Greater Manchester’ program. EMERGE has recognised themselves as a charitable enterprise that endeavours to a). enabling people to reduce, reuse and recycle more and better; b). fighting hunger and tackling food waste; c). creating opportunities to improve lives; d). influencing positive changes.

Data collection and analysis plan

Regarding each case, we will collect primary data through interviews with involved

participants (e.g., project managers in SMI hub, social entrepreneurs, and staffs in the social enterprises). Semi-structured interviews that allow open-ended questions will be adopted to encourage the interviewees to relate to their specific UIC experience. Concerning the two cases, we will collect data from multiple sources (i.e., interviews, reports and documents, and informal dialogs) and critically analyse the data by taking the project as the main unit analysis. In total, 20 participants will be interviewed, ten participants for each case (3 from social enterprise, 3 from university hub, 3 from project beneficiaries, 1 from the institution that sponsors the research hub). Besides, secondary data will also be collected from project documents and reports to triangulate with interview data to provide a comprehensive answer to proposed research questions and to increase rigorousness of our study.

Expected contributions

Theoretical implications

This study is expected to contribute new knowledge to UIC, social enterprise and design thinking areas. The novelty of this study lies in adopting the design thinking lens to this dedicated sector (social enterprise), which is understudied and certainly deserves more attention in UIC research. Our investigation will fill the gap by identifying features of UIC with hybrid organisations like social enterprises that dedicate to creating blended value. For example, what distinctive benefits will universities achieve by working with social enterprises other than regular business. As for social enterprise area, research outcomes to be generated will indicate a more comprehensive mechanism of how social enterprises can increase their innovation capabilities by networking with social alliances such as universities. Furthermore, this study will extend the application of design thinking approach as a management technique by exploring its role of promoting knowledge flow and facilitating social innovation in UIC projects.

Practical implications

Practical insights (such as enabling and barriers factors) will also be concluded to inspire involved practitioners (e.g., academic staffs, social enterprise employees, and related project managers). First, the mechanism devoted to social enterprises will provide a better understanding for universities participants regarding how to network with hybrid organisations like social enterprises to deliver knowledge transfer successfully. And it also could help universities publish more applied papers and strengthen links with the local community (which is a particular criticism that locals don't always benefit from a university nearby). Second, the study will conclude some management considerations in terms of adopting design thinking for social innovation, which is argued a suitable strategy for knowledge production in the field of social enterprise (Agafonow, 2019). In this regard, experienced social enterprises (that have been engaged in UIC before) can evaluate their practices on knowledge management while unexperienced social enterprises can be inspired to make scientific breakthroughs when looking for external support to expand their innovation capabilities. Third, this study will provide a clear direction for third parties to support social innovation. For example, plenty of policies are in favour of social oriented activities that are deemed to bring social innovation

(Johansson and Gabrielsson, 2021). With the support of public alliances in terms of promoting project enablers and/or overcoming barriers, social enterprises will find it less challenging to counter entrenching social issues and universities are likely to be exposed to more funding opportunities to contribute to industry and our society as most of their research projects are sponsored by councils and governments (Bruneel et al., 2010).

Conclusion

Social enterprises are collaborating with universities to increase their innovation capabilities toward socio-economic problems, where design thinking approach may play a facilitating role. Yet it remains unclear how design thinking can strategically fit into the collaboration process. To address this gap, we plan to provide an empirical analysis by studying two UIC projects taken place between University of Manchester and locally based social enterprises. We believe that this study will contribute to creating new knowledge for both the UIC area by revealing how design thinking approach can enable knowledge transfer from higher education to industries to promote social innovation, and to social enterprises areas about how social enterprises can increase their innovation capabilities to strengthen their competitiveness with the support of knowledge transfer. Management suggestions will also be developed to shed light on concerned parties (e.g., universities, social enterprises, and public sectors) so that they can perform better practices to increase the chance of UIC project success and boost social innovation.

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