Intermediary Interpreters in University-Industry Collaboration to Support Manufacturing SMEs

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EXECUTIVE SUMMARY

This chapter will present a series of university-industry collaboration (UIC) projects between a university industrial design research unit and various small-medium (manufacturing) enterprises (SMEs) with a focus on the facilitators role in these projects. Previous research has referred to 'innovation intermediaries' as a term to define (service) firms that proactively facilitate collaboration between two or more parties in innovation projects. In terms of technological development these have been exemplified as research and technology organisations (RTOs). The authors suggest an adjacent term 'intermediary interpreters' to describe the key facilitator by bringing together the term 'intermediaries' and the term 'interpreters' as they are defined by Roberto Verganti. These individuals have specialised external expertise and ability to take part in the 'design discourse; to support innovation. The authors argue that intermediary interpreters are an important third party in UIC projects that provide unique support that can help SMEs embrace innovation strategy and more effectively internationalise.

INTRODUCTION

This Chapter will present a series of University-Industry Collaboration (UIC) projects between a University Industrial Design Research Unit and various small-medium (manufacturing) enterprises (SMEs) with a focus on the 'interpreters' role in these projects, broadly responsible for supporting successful collaboration between the university and industry partners. At the University of Technology Sydney (UTS), the Integrated Product Design Research unit (IPD-R) is an Industrial Design Research group made up of four academic members of the Product Design Program in the School of Design. The cases analysed in this chapter are UIC projects worked on by this group. The group members all have experience as professional designers who have transitioned to academia. IPD-R specialises in external research engagement with local SMEs to support innovation development within those organisations and by extension, their ability to compete internationally. The members of IPD-R consider themselves academic design practitioners (2015), a term that has been defined in the following way:

"The academic design practitioner may be defined as a researcher with up-to-date competency in industry-based design practice, enabling them to adapt practice-led research projects that can strategically develop multi-tiered outcomes that supply academic and industry relevant outcomes concurrently." – From the paper: The Academic Design Practitioner, Creative Practices Conference, Arkitektskolen, Aarhus 2015

A very real issue when working with manufacturing SMEs in UIC product design projects is aligning the expectations of the SME with those of the University Research Unit. Research by Doherty, Wrigley, Matthews and Buculo (2013) identified that the integration of design innovation with SMEs faces three challenges:

- 1. Managing the expectations of the industry partnership. Universities will often be interested in establishing design innovation as a wider strategic benefit for the SME. Whereas the SME may be primarily concerned with a new product design.
- Conveying the relevance and potential of design innovation across the company. The partnership, wherever possible should attempt to extend beyond the SME director and the designers, to include other departments or relevant partners.
- 3. Risk averse culture. SMEs can be more reactive than proactive. Proactive management of design innovation across the company can be made possible via "strategic activities to hone the company's core value proposition".

This aligns with research from Bruneel, D'Este and Salter (2010) that finds that orienting the goals of university and those of the industry partner in UIC projects is critical. They note that universities tend to have a leaning toward 'pure science' and a long-term, research focused view compared to the "urgency of implementable industry research". Additionally, Bruneel et al. (2010) recommend that conflicts over Intellectual Property (IP) must be avoided.

UIC projects, most particularly those that are funded, include a facilitator - a third party. For example, the CSIRO¹ SME Connect Scheme has dedicated personnel known as 'Innovation Connections Facilitators'. These are specialists who will have business and technical expertise. They are typically very good at facilitating the negotiation of mutually beneficial goals between the SME and the university research team; and the setting of the scope of the project.

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