

Chapter 9

Design–Led Innovation: Overcoming Challenges to Designing Competitiveness to Succeed in High Cost Environments

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ABSTRACT

This chapter focuses on demonstrating the role of Design-Led Innovation (DLI) as an enabler for the success of Small to Medium Enterprises (SMEs) within high growth environments. This chapter is targeted toward businesses that may have been exposed to the concept of design previously at a product level and now seek to better understand its value through implementation at a strategic level offering. The decision to engage in the DLI process is made by firms who want to remain competitive as they struggle to compete in high cost environments, such as the state of the Australian economy at present. The results presented in this chapter outline the challenges in the adoption of the DLI process and the implications it can have. An understanding of the value of DLI in practice—as an enabler of business transformation in Australia—is of benefit to government and the broader design community.

OVERVIEW

The importance of design to a firm's innovation has been the subject of much research particularly in the design and development of new products. More recently it has become widely understood that design can add significant value to a firm's strategic capabilities beyond the development of

a product or service. Design continues to reposition itself from a downstream manufacturing related activity to one which adds strategic value to business. This union of design and strategy is referred to as Design-Led Innovation (DLI). DLI is a process for business transformation, providing a mechanism where businesses are able to manufacture or create an alternative competitive

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advantage to that of operating in low cost environments – especially low labour cost environments.

In Australia, the small to medium enterprise (SME) sector is currently at a crossroads. Technological advancements have in many cases lowered start-up costs for many new businesses and by virtue of their size, SMEs are able to react relatively quickly to changes in the business environment (Condon, 2004). However, the high Australian dollar combined with low total factor productivity and high labour unit costs increases operating costs, making it very difficult for SMEs to grow to meet increasing demand (Moufarrige, 2012).

SMEs are more prevalent in Australia representing (98.3%) of total business in comparison to other key OECD nations such as the US (87.4%) and the UK (94.6%). The Australian Government has emphasised the importance of increasing productivity, using creativity and design-based thinking to solve complex problems (DIISR, 2009; Australian Government, 2012). In its broadest view, DLI provides businesses with an opportunity to increase productivity through business transformation, to overcome comparative costs disadvantage, and contribute to overall cost reduction (Samson, 2010 p.40).

In a low cost economy, a common route to success in manufacturing business is imitation, whereas in a high cost environment it is innovation. In a low cost environment, most factors of production are available at lower or similar cost compared with other locations. With the development of technology and increased globalisation, the share of factors of production available at similar cost increases, making the remaining factors of production available at lower cost increasingly valuable as a basis for the firm's competitive advantage. These remaining factors tend to be linked to national or regional comparative advantages, such as minerals, agricultural land or produce, low population-density land, biodiversity, and university educated people.

In a high cost environment, this development when combined with the increasingly shorter lead-time for codification of tacit knowledge, tends to continuously undermine firm competitiveness. To stay competitive, firms in high cost environments must either shield some valuable pieces of knowledge from becoming globally accessible, or be able to create, acquire, accumulate and utilise codified knowledge faster than firms in more favourable cost locations. This ability is strongly supported by close interaction with suppliers, customers, and rivals. Furthermore, processes of knowledge creation are strongly influenced by specific localised capabilities such as resources, institutions, social and cultural structures.

Traditionally, the answer to the question of what drives productivity in advanced economies has been the technological change and innovation embodied in capital equipment, but more recent evidence suggests that non-technological innovation is just as, if not more, important. These include: design and branding; new business models and production methods; systems integration and the firm's absorptive capacity; and the development of high performance work organisation and management capabilities. While ingenuity may be found in many Australian workplaces, Australia lags behind other advanced economies in these areas including investment in intangibles (defined as R&D, ICT, Organisational Structures, Business Models, Design, Brand Equity, Education and Training).

This chapter outlines the value of Design-Led Innovation in supporting SMEs to compete in a high cost environment. Based on an analysis of Australian SMEs who have begun their adoption of DLI to remain competitive, challenges are revealed. This highlights the key activities which must be undertaken to enable this approach to competitiveness in a high cost environment to be scaled across the SME community.

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