

<b>Institution:</b> University of Manchester		
<b>Unit of Assessment:</b> 17 (Business and Management)		
<b>Title of case study:</b> Influencing Innovation and Servitization in Small and Medium-sized Enterprises (SMEs) in Manchester		
<b>Period when the underpinning research was undertaken:</b> 2004 – 2017		
<b>Details of staff conducting the underpinning research from the submitting unit:</b>		
<b>Name:</b>	<b>Role(s) (e.g. job title):</b>	<b>Period(s) employed by submitting HEI:</b>
Judy Zolkiewski Jamie Burton	Professor Professor	1999 – present 2001 – present
<b>Period when the claimed impact occurred:</b> 01 Aug 2013 – 31 Dec 2020		
<b>Is this case study continued from a case study submitted in 2014?</b> N		
<b>1. Summary of the impact</b>		
<p>University of Manchester (UoM) research on business-to-business services and servitization capabilities has significantly benefited two UK-based SMEs: HMG Paints Ltd. and IPEC Ltd. Research-led changes have enabled both firms to modify their business models and organisational cultures, unlocking the potential for significant revenue growth. HMG's partnership with UoM researchers led to the implementation of an innovation management system for identifying new products and services. A product identified via this process is now one of the company's most successful offerings. The partnership with IPEC enabled it to expand into overseas markets in 10 countries, increasing its personnel and turnover by 40%, thereby contributing to the North West's export capacity, achievements recognized by a Queen's Award for Export.</p>		
<b>2. Underpinning research</b>		
<p>Over the past sixteen years, Zolkiewski, Burton and colleagues at UoM have conducted research into business-to-business (B2B) services and servitization. This work addresses the question of how manufacturing firms build the capabilities to develop services and solutions that supplement their traditional product-based offerings, thus improving their productivity. Working in partnership with companies, this co-produced research has pioneered a customer-focused approach to understanding servitization in historically product-oriented manufacturing SMEs. The work used direct knowledge of end users' needs to enable organisational and cultural changes required to successfully develop a range of service 'products' to enhance on-going B2B relationships.</p> <p>A key contribution of the research underpinning the impact is that it has improved understanding of the role of customer relationships in developing innovative products and services in B2B markets served by traditional manufacturing firms [1], which often have a product focus. Related work [2] has investigated conceptions of quality of service (in contrast to quality of product), demonstrating that firms and clients have divergent perceptions of what constitutes service excellence.</p> <p>Zolkiewski and UoM colleagues applied their theoretical knowledge in two empirical cases – a paint manufacturer, HMG Paints Ltd (HMG), and a metal finishing company, IPEC Ltd [3]. They identified reasons why B2B service failed and why these reasons differ (depending on whether the service is supporting the physical product, or supporting the customer). These cases provided insight into the organisational processes, cultures, and competencies required</p>		

to manage service failure and enable HMG and IPEC to develop profitable models of servitization.

Additional case-based research [4] explored servitization, specifically within the context of a high-tech manufacturing company, as it addressed rapid changes to the technology that previously dominated its field. This research further developed the conceptual understanding of the relationships that underpin effective innovation and servitization models, recasting them in terms of “focal networks” through which firms collaborate and combine their individual services into a single coherent, customer-facing offering. This focal network approach challenged the “focal firm” interest in individual firms that had hitherto dominated much of the resources and capabilities research; this approach has been used to show how interactions between companies drive capability development and effect the introduction and operation of new service offerings into business networks [5].

The most recent research [6] applies this re-conceptualisation to four established UK-based manufacturers, in order to explore what happens to existing physical products as new service models emerge. The findings revealed the challenges that manufacturers face when embarking on servitization initiatives, particularly the risks associated with trying to 'break free' from their product heritages, and identified the capabilities used to overcome these challenges.

Collectively, this body of work has identified the complex interaction between services, customers, innovation and technology in contemporary manufacturing. Teams at HMG and IPEC have drawn extensively on the resulting insights to develop their businesses.

### 3. References to the research

- [1] Baraldi, E., Brennan, R., Harrison, D., Tunisini, A. and **Zolkiewski, J.** (2007) Strategic Thinking and the IMP Approach: A Comparative Analysis. *Industrial Marketing Management*, 36 (7), 879-894, <https://doi.org/10.1016/j.indmarman.2007.05.015>
- [2] **Zolkiewski, J.M.** Lewis, B., Yuan, F., and Yuan, J. (2007) An Assessment of Customer Service in Business-to-Business Relationships. *Journal of Services Marketing*, 21(5), 313-325, <https://doi.org/10.1108/08876040710773624>. Received 'Highly Commended' MCB Literati Club award May 2008.
- [3] Zhu, X and **Zolkiewski, J.** (2015) Exploring Service Failure in a Business-to-Business Context. *Journal of Services Marketing*, 29 (5), 367-379, <http://dx.doi.org/10.1108/JSM-02-2014-0055>
- [4] Chou, H.H., and **Zolkiewski, J.** (2012) Managing Resource Interaction as a Means to Cope with Technological Change. *Journal of Business Research*, 65 (2), 188-195, <https://doi.org/10.1016/j.jbusres.2011.05.021>
- [5] Raddats, C., **Zolkiewski, J.**, Story, V.M., **Burton, J.**, Baines, T., and Bigdeli, A.Z. (2017) Interactively Developed Capabilities: Evidence from Dyadic Servitization Relationships. *International Journal of Operations and Production Management*, 37 (3), 382-400, <http://dx.doi.org/10.1108/IJOPM-08-2015-0512>
- [6] **Burton, J.**, Story, V.M., Raddats, C. and **Zolkiewski, J.** (2017) Overcoming the Challenges That Hinder New Service Development by Manufacturers with Diverse Services Strategies. *International Journal of Production Economics*, 192 (October), 29-39, <http://dx.doi.org/10.1016/j.ijpe.2017.01.013>

Knowledge Transfer Partnership (KTP) award to Zolkiewski, 'Developing strategic planning and implementation to enable HMG to improve its ability to exploit all of its innovations through a deeper understanding of market needs', Technology Strategy Board GBP82,457,00, HMG Paints GBP40,614,00, 1/3/09 – 28/2/11.

KTP award to Zolkiewski, 'Developing companies' ability to identify implement growth strategies through 'servitization', product and market development in the UK and abroad', Technology Strategy Board GBP82,482,00, IPEC Ltd GBP49,878,00, 25/6/13 – 30/6/15.

#### 4. Details of the impact

##### Context and pathway to impact

Zolkiewski, Burton and colleagues have applied the findings from their case-based fieldwork to generate actionable insights in the form of new operating principles, which have helped companies develop profitable models of B2B services and servitization [1,2]. Specifically, a team led by Zolkiewski has applied research findings on the interaction between customers, networks and innovation in B2B relationships in separate KTPs with HMG Paints Ltd (HMG) and IPEC Ltd.

In relation to the HMG KTP and as explained below, Zolkiewski and colleagues:

- i. developed a formalised innovation management process that enabled the firm to identify new products and create new revenue streams;
- ii. helped the firm to access new markets.

In relation to the IPEC KTP and as explained below, Zolkiewski and her team:

- i. developed a new scalable servitization strategy that created a definable new business area;
- ii. and enabled the firm to develop advanced services [5], which opened access to export markets.

In both cases, the pathway to impact involved a strategic review of existing business models, the development of new processes, governance structures and innovation practices. This led to new products, markets, and organisational cultures, which in turn increased sales revenue. Applying this research has enabled further research to materialise, and benefit other KTPs. This approach produces a virtuous circle of application, impact and further research [3-6].

##### Impact of the HMG KTP - selecting innovative products and services, and providing access to a wider market

HMG is a medium-sized, family owned, industrial surface coatings manufacturer based in Collyhurst, Manchester. Established in 1930, it is the UK's leading independent manufacturer of bespoke paints and coatings for use in commercial transport, original equipment manufacturing, civil engineering and construction.

The HMG KTP applied the team's research in B2B marketing, new product and service innovation processes and change management within SME B2B networks [1, 2]. The aim of the KTP was to develop a formalised innovation management process, covering inception, evaluation and bringing the product and service to market. The KTP helped to address a culture in the firm whereby product and service innovations that did not have immediate application with the existing customer base failed. The company lacked a formal process to monitor, manage and control the development and exploitation of innovations. Innovation in SMEs is often constrained by the tendency to be conservative and serve existing customers with proven solutions. While this secures current revenue streams, it tends to discourage the creation of new ones. UoM researchers worked with HMG to increase its innovative capability, creating a formal product screening process that enabled the firm to identify new products that could develop new revenue streams.

The pathway to impact began with the team's research insights on how to build firms' capacity to address the interaction between services, customers, innovation and technology. This happened through a number of processes. The existing innovation process was reviewed and the need for a new "pre-development" process identified. A toolkit for the pre-development stages of the new innovation management process was developed and Technical Risk Assessment Meetings (TRAM) were introduced to oversee the proposed innovations.

Drawing on the relational and focal networks approach, the HMG KTP incorporated a customer needs assessment methodology into the process for selecting innovative products and services, which enabled HMG to access a wider market [2, 3]. The KTP team delivered a new product and service screening system that allowed innovation efforts to be more clearly focussed both on existing markets and on new target markets. *“Working with Professor Zolkiewski and colleagues from [UoM] allowed us to develop a process for selecting innovative products and services that better met HMG’s customers’ needs and provided HMG with access to a wider market while remaining focussed on the profitability of these innovations.”*[A] One of the first products identified through the new selection processes, implemented under Zolkiewski’s guidance, is “monothane,” a product topcoat that requires no primer. This innovation was shortlisted for Insider Media’s “Made in the North West Technology Award” and has subsequently become one of the company’s most important products [B]. HMG have commented that the KTP led to *“the implementation of a clear new product and service screening system that allowed innovation efforts to be more clearly focussed on existing markets and new target markets”* [A]. HMG has attributed circa GBP5,710,000 in sales (from the end of the KTP in 2011 to December 2019) to the KTP [A].

### **Impact of the IPEC KTP – expanding into overseas markets, increasing personnel and turnover**

IPEC Ltd. is a British company that develops world-leading technology for monitoring faults and problems in power networks across the world; around 90% of its business comes from outside the UK. IPEC’s monitoring systems send data back to secure servers at its head office and the company offers a range of data hosting options. The IPEC KTP aimed to develop a new scalable servitization strategy to allow the company to innovate a range of complimentary services to support its existing business. The researchers helped IPEC move forward in the value chain, from focusing exclusively on manufacturing, to greater involvement in distribution and system servicing.

Working with Zolkiewski and her team, IPEC, translated the theoretical knowledge outlined above into the firm’s specific context. This happened through a three-stage process: A steering group of key IPEC managers and employees was set up at the start of the project; Learning Lunches were used to transfer knowledge to the whole organisation and outputs from the KTP were directly incorporated into its policy and process management systems.

A series of stakeholder interviews with the company’s customers, distributors, employees and managers led to the identification of five key areas for servitization, including, for example, developing a leasing service and new remote diagnostic services. Drawing on the relational, customer-focused approach outlined above, the company engaged with its existing clients, improving direct knowledge of its end user’s needs. Translating the “focal networks” approach [4,5], the KTP oversaw the creation of a dedicated Support Department to manage the non-product side of customer relations and a new 30 step distributor management model was designed and rolled out to help align perceptions of service quality. This model also sets out a process and rules for the creation of new services.

One of the *“greatest changes”* was changing the company culture from *“just shipping hardware to customers”* towards a service focus [C]. IPEC used to see its interaction with customers as ending upon the installation of their systems, but the organisation now continue the interaction into servicing and upgrading. Fundamentally, UoM researchers helped IPEC to shift strategically from an upstream manufacturer to a more forwardly integrated company providing products and associated services. For example, the company was able to complement their existing monitoring and instrumentation products, with “system performance” and “expert analysis” services [D].

These new knowledge management process and culture changes enabled IPEC to create *“a definable new business area”* [C]. It enabled the firm to develop advanced services [5], which opened access to overseas markets in 10 new countries. The firm has attributed circa GBP 364,000 in sales revenue to the KTP in the four years following its end in 2015 [C]. As context,

the sales turnover for the year prior to commencing the KTP (2012-13) was GBP638,000, with profit before tax standing at GBP16,000 [C].

IPEC won the Queens Award for Export in 2016 in recognition of the company's substantial and sustained increase in export earnings over three consecutive 12-month periods, with the company's press release around this award explicitly acknowledging the role the KTP played in this achievement [E]. IPEC's new focus on international markets led, in September 2020, to a GBP5,000,000 contract with the Saudi Electric Company (SEC). The contract "is the biggest the company has secured since its launch in 1995" [F].

The KTP with IPEC has been used by the Chartered Association of Business Schools (a membership body which supports the UK's business and management education sector and its leaders) as a specific example of how companies working with researchers in business schools can boost the UK's productivity and tackle the Grand Challenges laid out in the UK government's Industrial Strategy [G].

### 5. Sources to corroborate the impact

- [A] Testimonial from Managing Director, HMG Paint Ltd, received 02/01/2020
- [B] HMG Paint news webpage, 02/05/2014, '[Successful Year for Monothane 2K Polyurethane Finish - News Article - HMG Paints Limited](#)'
- [C] Testimonial from Business Development Director, IPEC Ltd, dated 15/09/2020
- [D] IPEC KTP final report, 2015, which was awarded the highest grade of "Outstanding" by the KTP Grading Panel for its achievement in meeting KTP's Objectives.
- [E] IPEC Queens Award announcement, 18/10/2016, <http://www.ipec.co.uk/queens-award-for-international-trade/>
- [F] IPEC press release regarding new GBP5,000,000 contract, 28/09/2020, <http://www.ipec.co.uk/press-release-manchester-based-company-ipec-expand-workforce-securing-5m-contract%e2%80%af/>
- [G] Chartered Association of Business Schools video, 'How Business School Research Empowers Businesses and the Economy', [https://charteredabs.org/research-impact/#1557391372315-52ee305f-6876\\_including\\_statement\\_from\\_Business\\_Development\\_Director\\_at\\_IPEC](https://charteredabs.org/research-impact/#1557391372315-52ee305f-6876_including_statement_from_Business_Development_Director_at_IPEC)