

Institution: University of the West of England, Bristol		
Unit of Assessment: 17		
Title of case study: Co-creating sustainable futures for organisations		
Period when the underpinning research was undertaken: 2012-2019		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Peter Bradley	Associate Professor Economics	Sept 2013 – present
Tim Hughes	Professor of Applied Marketing	Jan 2002 – present
Period when the claimed impact occurred: 2014-2019		
Is this case study continued from a case study submitted in 2014? No		
1. Summary of the impact		
<p>Research led by Professor Tim Hughes and Dr Peter Bradley developed a new framework for co-creative sustainable business planning and implementation within development in organisations. This framework was then implemented and had significant impacts in three contrasting organisations. For energy company REDACTED Ltd, the intervention changed customer energy consumption, leading to a change in the company's business strategy. For the charity REDACTED, working with older people, an alternative more sustainable business model was introduced, along with brand development, to enable more effective income generation. For technology company Viper Innovations, a Knowledge Transfer Partnership (KTP) enabled the company to develop new markets and secure new commercial partners, and to implement structural and cultural changes to enable long-term global growth.</p>		
2. Underpinning research		
<p>Research conducted by Professor Tim Hughes and Dr Peter Bradley at UWE Bristol Business School led to the development of a new model for value realisation and financial sustainability based on 'co-creation' in collaboration with customers and partners. The research was developed through linked case studies conducted in collaboration with three contrasting business partners. Research and impact were closely linked - collaboration with the business partners both helping to take forward research, learning and conceptual development and to drive impact on the businesses themselves, their customers and partners.</p> <p>Working with the energy company REDACTED Ltd, the UWE research team were able to collect primary data on the energy consumption and behaviour change of residential consumers. Different interventions then provided evidence on the range of factors affecting reduction and shifts in energy consumption in response to different financial incentives (R1). The research team worked with the company to understand their business model and how this affects the environmental, social (user value) and economic (exchange) value that it was able to create and capture. This made use of a new business model framework (R2) that focusses on sustainability. This stage of the research provided an initial conceptual model of</p>		

value co-creation, including guidance to assist practitioners seeking to enhance the value that they might realise in conjunction with their customers and clients (R3).

This framework (R2) then provided the basis for collaborative research with the charity, REDACTED. This explored factors impacting on its financial stability, future strategy, social mission and proposition (G1). The analysis of the short-term and medium to long-term financial viability of the charity highlighted the areas that were most jeopardizing their financial position. Research (R4) informed the work of the charity to re-create its brand and service proposition in a co-creative relationship with its partners and stakeholders in a way that is sustainable within its community.

Building on the REDACTED project as a case-study, a dataset and analysis of UK charities was then developed to explore the financial resilience of charities nationally, identifying key findings on grant dependence and failure rates (R5). This work demonstrated empirically, at the wider sectoral level, that higher grant dependence tends to increase charity failure rates and is a highly significant influence on policy decisions in the charity sector. Specifically, the research demonstrated that the usually assumed association between income concentration *per se* and financial vulnerability, is a specification error. Greater vulnerability is, rather, associated with a higher dependence on grant funding, and not overall concentration. UWE research findings also refute the common view that higher administrative costs reduce vulnerability. The research went on to explore how models of co-creation can usefully be applied to securing sustainable innovation through collaboration between university, industry and government (R4, R6).

This research underpinned the third case study with technology company, Viper Innovations, based on a KTP (G2). The aim here was to establish a co-creative product innovation process to enable New Product Development (NPD) in new sectors. It enabled an innovative SME to take their deep-sea cable monitoring technology and develop it for monitoring rail trackside cables. R4 developed a model of co-creation that guided Viper's collaboration with Network Rail and many other partners. The co-creative approach, advocated in R4, was essential in integrating Viper Innovation's technical knowledge with the contextual know-how of the customer and other stakeholders in the supply chain, to further develop the technology, get trials set up and gain user acceptance. The co-creative approach provided a blueprint for Viper Innovations in entering new markets.

3. References to the research

R1 Bradley, P., Coke, A. and Leach, M. (2016) 'Financial incentive approaches for reducing peak electricity demand, experience from pilot trials with a UK energy provider energy policy.' *Energy Policy*, vol 98: pp. 108-120. <https://doi.org/10.1016/j.enpol.2016.07.022>

R2 Bradley P., Parry G., O'Regan N (2020). 'A framework to explore the functioning and sustainability of business models.' *Sustainable Production and Consumption*, vol 21: pp. 57-77. <https://doi.org/10.1016/j.spc.2019.10.007>

R3 Hilton, T. Hughes T. and Chalcraft, D. (2012) 'Co-creation: resource integration and value realisation,' *Journal of Marketing Management*, 28(13-14): pp. 1504-1519. <http://dx.doi.org/10.1080/0267257X.2012.736874>

R4 Hughes, T. (2014) 'Co-creation: moving towards a framework for creating innovation in the Triple Helix,' *Prometheus*, 32(4), pp. 337-14. <http://dx.doi.org/10.1080/08109028.2014.971613>

R5 Green, E., Ritchie, F., Parry, G. and Bradley, P. (2016) *Financial resilience in charities v.2*. Submitted to House of Lords Select Committee on Charities, 30th September: <http://eprints.uwe.ac.uk/30015>

R6 Hughes, T. and Vafeas, M. (2018) 'Service-dominant logic as a framework for exploring research utilization.' *Marketing Theory*. 18(4) pp. 451-472
<https://doi.org/10.1177/1470593118764019>

Evidence of the quality of the supporting research

G1 Bradley, P: *REDACTED Local Sustainability Project*, REDACTED Bristol, 2015-2017, £55,650. Cabinet Office and Big Lottery Fund.

G2 Hughes, T: *Knowledge Transfer Partnership with Viper Innovations*, Innovate UK, 2017-2019, £106,722.

G3 Bradley, P: Helping ensure survival: Digitally Enhanced Advanced Services in Community Business. Funded by Digitally Enhanced Advanced Services (DEAS) Network Plus. 2020-2021, £10,000.

4. Details of the impact

Co-creating sustainability in the energy sector

In the case of REDACTED, UWE research conducted with the company addressed the important issue of how the business could collaborate with consumers to reduce and shift electricity consumption to different times of day. The research (**R1**) explored customer participation with, and response to, different incentive approaches for REDACTED Ltd. The company's Managing Director noted that the work had:

'significant impact by furthering our understanding on both customer behaviour in relation to smart metering technologies, and behaviour in response to different incentive structures' (S1).

The work has also been instrumental in helping REDACTED understand the range of customer barriers, and policies to address these when engaging in demand response. Further work with the company focused on understanding and assessing business models for sustainability, leading to a framework for a sustainable business model. According to the company:

'This pilot work has significantly informed and strengthened our strategy and policy towards certain forms of demand response. The company's current and future decisions/activities will as a result of Peter's research be benefited' (S1).

This research (**R1**, **R2**) provided a template that was used more widely by organisations including REDACTED, REDACTED, REDACTED and REDACTED.

Co-creating sustainability in the charity sector

REDACTED is a Bristol based charity offering social activities to reduce isolation and loneliness in older people. As such, the charity has to operate in close collaboration with partners and stakeholders in the Bristol region. The charity was encountering significant financial difficulties that would have led to its closure. The application of UWE research helped them quantify their economic situation (**S2**) and understand how their business model design was impacting their sustainability and economic viability as an organisation by applying the framework (**R2**). As a result, REDACTED changed their operating model and business plan allowing them to become financially sustainable:

'Due to successful rebranding and remodelling the REDACTED Network has successfully secured grants of £450k, donations totalling £210k and income totalling £44k. Together this combined income has provided financial stability for three years' (S2).

Sub-projects on branding and marketing strategy involved collaboration between REDACTED and a range of stakeholders in developing a sustainable positioning and proposition in relation to the community and their partners (S3, S4).

'The branding work stream has made a valuable impact for the charity going forward, in providing a branding that supports the implementation of a new strategy.' (S4)

The company documented the branding guidelines that are being used to implement the new strategy and to ensure a consistent balance of brand presence between REDACTED and the partners, which is essential to maintaining sustainable working relationships going forward (S5). The project also helped the organisation secure funding and develop a longer-term vision for viability (S2).

Sector-wide analysis of charities using the new dataset derived in the course of the research, referred to in Section 2 (R4), was used to inform work with REDACTED. It was also reported to and noted by the House of Lords Select Committee on Charities (S6) on the challenges facing the charitable sector:

'Academics from the Bristol Business School said that: "Compounding the challenge is the notion that holding reserves within the charity sector has been considered taboo by significant regulatory bodies and advisors to the sector" (S6).

A view challenged by the research undertaken, and potentially changing perceptions and understanding on the part of policy makers and other stakeholders.

Co-creating sustainability in the technology sector

In the third case study a Knowledge Transfer Partnership (KTP) was a vehicle for significant impact on technology company Viper and its wider business partners. Viper's existing deep-sea oil business was in recession and Viper Innovations, an SME supplying monitoring equipment for deep sea oil companies, lacked experience of diversifying into new markets. The KTP was strategically critical to Viper's future ability to enter new markets and to generate new revenue streams. UWE research again supported a co-creative approach to user-led innovation, with Viper working closely with new partners to establish how the company could rapidly enter a major new market (rail) with global potential. Increased in sales turnover directly attributed to the KTP was reported to be GBP1,275,000 *per annum*. Viper Innovations' final report for Innovate UK referring to a new product line stated that:

'The impact of the KTP programme can be measured as a result of the market developed for CableGuardian which is new revenues. The KTP work has effectively accelerated the growth of this revenue stream and therefore brought forward annual profits' (S7).

Cultural and structural changes were implemented in the company to enable long term global growth (S7).

Innovate UK subsequently gave the KTP its highest rating of 'outstanding' reflecting the impact secured by the KTP (S8). The Managing Director of Viper Innovations, noted that:

'The KTP has proven to be an excellent vehicle for transferring and embedding a level of knowledge and understanding to the business. Consequently there has been

a step change in our approach to product development, which ultimately ensures alignment to our clients' needs, reduces our cost and time to market' (S9).

Wider impact

The three linked case studies demonstrate the application of a common approach and framework derived from UWE research and developed, in practice, in collaboration with the three organisations. This had immediate impacts in terms of the business models of the three organisations, their financial sustainability and longer-term viability. This in turn has had wider impacts on and benefits for the customers, clients and service-users, and partners of the three organisations. There were wider impacts as well in terms of learning and understanding through the House of Lords Select Committee. Wider dissemination, by the research team, of the framework developed from collaboration with the three case study organisations to a larger group of businesses and organisations. For example, the Viper Innovations KTP was used as a case study at the CBI conference *Innovation: Business Insight Conference* held at Renishaw, Gloucestershire in May 2018. The framework (R2) has been applied in-depth with a county council, a sustainable business network organisation, a local currency community interest company, and via business workshops. The framework (R2) is also currently applied in a new funded project with community businesses (G3).

5. Sources to corroborate the impact

- S1 Testimonial from Managing Director, REDACTED Limited
- S2 Testimonial from Operations Manager, St Monica's Trust/Trustee, REDACTED
- S3 Testimonial from Acting Chief Executive, REDACTED
- S4 REDACTED Network Final Report: Branding Workstream
- S5 Internal Branding Guidelines, REDACTED
- S6 [House of Lords Select Committee on Charities Report of Sessions 2016-17: Stronger Charities for a Stronger Society](#). (p.72)
- S7 Viper Innovations KTP: Final Report
- S8 Certificate from Innovate UK
- S9 Testimonial from Managing Director, Viper Innovations