

Universities working together and with Industry

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Abstract

A case study is presented on how an opportunity for Universities, not-for-profit organisations and high technology companies, to collaborate on stimulating social learning and value creation was assessed using a market focused approach from a collaborative platform.

Over several years the various parties had identified that significant research and development potential existed between themselves. Individually funded projects had proven successful but no sustainable collaboration emerged. A wider opportunity presented itself but before committing additional resources a market review was commissioned. Knowledge West, as a collaborative Centre of Knowledge Exchange (CKE) was asked to provide an independent review of the opportunity and evaluate the sustainable potential for collaboration.

The methodology used to evaluate the potential was QuickMark[®], a service aimed at commercial market opportunity assessments. It was modified to consider the socio-economic landscape of the proposed Pervasive Media Studio. Semi-structured interviews, bi-lateral discussions and wider market scanning were used to provide the core evidence base. PEST (Political, Economic, Social, Technological) analysis framed the knowledge exchange potential across the collaboration. Significant areas of complementarity were identified which, together with indicative funding sources, provided the critical overview of the opportunities available. These were balanced by identifying core competitive areas of activity between the partners.

This case study will draw out the learning gained in evaluating KT opportunities from a collaborative platform. The benefits and limitations of the specific QuickMark approach are identified and summarised with particular reference to generalisability. Proposed developments of the approach are put forward.

Background

Over several decades, a range of digital technologies have been developed in the Bristol city region. These have been focussed in the two Universities (University of Bristol and the University of the West of England), the BBC, and HP Research Labs. This research has been applied by a number of small creative businesses in what is recognised as a leading centre for digital media. In particular, the Watershed has emerged as a hub for digital media production, exhibition and social involvement. A major funded programme from the DTI led to the development of Mobile Bristol and individually funded projects within that scheme have been evaluated as successful. Despite this success, no sustainable collaboration emerged. A wider opportunity presented itself but before committing additional resources a market review was commissioned. Knowledge West, as a collaborative Centre of Knowledge Exchange was asked to provide an independent review of the opportunity and evaluate the sustainable potential for collaboration.

Approach

QuickMark was originally developed by the University of the West of England, Bristol (UWE) with South West Regional Development Agency (SWRDA) support through the InspireSW funding programme (2003 to 2005). The initial concept was to develop Masters graduates by providing practical market research experience in a commercial setting, and to provide innovative regional companies with access to early market research that would inform their business decision making. It was considered successful and popular with both Researchers and clients (1).

In 2004, the Higher Education Funding Council for England (HEFCE), in response to the Department for Education & Skills' White Paper(2), established the network of 22 Centres for Knowledge Exchange (CKE) (3), one of which was Knowledge West (originally Excel West (4), the name was changed in 2006). As the InspireSW funding drew to a close, QuickMark was relocated within the new CKE as part of encouraging Universities in working together and with industry.

Clients for QuickMark ranged from University start-ups, established companies and entrepreneurs seeking investment capital. In all cases a clear commercial product or service was being proposed in a difficult to research market place. For each QuickMark several meetings were held with the client, desk research and some telephone interviews provided the evidence base and a written report formed the deliverable. The work is usually conducted over a month, because of the expanded scope of this particular assessment the work was carried out between October and November 2007.

Method

The QuickMark method is to use good market research practice in a tightly controlled work plan to deliver qualified information to aid better business decision making. An initial meeting with the project manager establishes need and broad scope of the work. Once contracts are in place a QuickMark researcher is assigned to the client and the main interview is scheduled. This interview provides a formal introduction for the Researcher to the client

and establishes the scope of work to be undertaken. These two meetings are critical to ensuring a suitable scope of work and management of expectation on behalf of the client.

After the interview the Researcher undertakes desk research with the option for a small number (typically 4 to 6) telephone interviews with identified key contacts (potential suppliers, partners, competitors). The QuickMark Manager reviews work undertaken at two check points before the final report is submitted by the Researcher. This usually takes between 20 and 25 hours of activity, spread over 2 or 3 weeks. Following the draft final report being agreed with the QuickMark Manager, the Knowledge West Director reviews the report prior to sending to the client. After final sign off a pdf copy along with 2 printed copies are sent to the client with an invoice. A month later a feed back sheet is sent to both client and Researcher to aid continual development.

In considering the collaborative proposal to develop a Pervasive Media Studio in Bristol there were several modifications required. The main being that the innovation was not a product or service, but a collaboration around a set of disciplines loosely termed "Pervasive Media". These disciplines included computer science, mobile hardware, software, digital media, creative arts, performance, sociology, community engagement.

The research was concentrated on the two lead HEI partners, UWE and the University of Bristol. The scope of work also concentrated on post-graduate research and collaborative opportunities that might exist within the Studio. The client, for contract purposes, was HP Laboratories. Because of this expanded scope and unusual nature, the QuickMark Manager conducted the research directly with Quality Assurance and review from the Knowledge West Director. The time spent on the project was greater than for a usual QuickMark with 43 hours being used, mostly arising from the increased number of interviews.

Data Collection

There was a significant amount of data available on post-graduate research from both HEI partners. These include MIT Media Lab, Northern Edge and the Integrated Graduate Development Scheme between Hong Kong University and the University of Warwick. Additional published reports were used to evaluate the broad mechanisms for academic and industry collaboration around a broad theme to deliver specific projects.

An earlier attempt to evaluate the opportunity for engagement in a Pervasive Media Studio by the HEI partners had listed every under-graduate and post-graduate course that might have a connection to the Studio. This ran to over 20 pages, a testament to the breadth of activity within the University but of limited practical use in evaluate the potential for collaboration.

The bulk of the evidence gathered in this exercise was through interviews. Each meeting was conducted at the interviewee's place of work, or in a mutually convenient location. This ensured that people were at their ease, had materials available as needed and minimised the disruption to their day. All but one interview was on a one to one basis, and that other meeting was with a Head of School and Senior Researcher from the same research group. Meetings were balanced between the two HEI partners, industry partners and potential funders. Since the focus was on the collaborative opportunities for HEI engagement there was a weighting towards them.

In total 15 meetings were held with around half being with the HEI partners. Each meeting took about an hour and followed roughly the same structure, though discussions were allowed to follow a natural course within the framework of the QuickMark Stakeholder interview. Notes were taken but it was made clear in every case that the work was being conducted in confidence and that interviews would be made anonymous unless the stakeholder was comfortable being identified. All stakeholders agreed to be named.

Usually the QuickMark method uses Porters 5 Forces (5) as an analysis framework. Porter provides for a very market focused approach that is particularly suited to new product introduction or market development. In the context of a partnership opportunity, the definition of buyers, suppliers, substitutes, etc, are not easily defined or helpful.

PEST (6) (Political, Economic, Social, Technological) analysis framed the knowledge exchange potential across the collaboration. PEST provides a broad understanding of the environment in which a proposed undertaking will occur. In this respect it is particularly suited to the form of collaboration that the Pervasive Media Studio hoped to embody. The interviews did not revolve around the PEST headings, they conformed largely to the structure used in the usual QuickMark process. Additional attention was focused on answers that indicated alignment (or otherwise) with PEST themes.

An example would be the question that explores the level of competency or expertise that a customer would need to use the innovative product or service. This is used to place the product in the supply chain and determine if it is being sold to technical designers or to the general public. Answers relating to the Pervasive Media Studio revolved around levels of Masters teaching, and engagement with both Regional Development Agency and with local community groups. Each interview gave differing answers addressing different areas of focus. By reviewing them all it was possible to identify the key points of engagement across the PEST scale.

Findings

Although there was general alignment of vision for the proposed Studio, there were significant differences on the perceived offering between the partners. QuickMark is not designed to be a comprehensive full market study. Having identified these areas of potential difference, it was left to the emerging partnership to resolve them, but with an independent review to inform that resolution process.

Earlier work had tried to address every possible mode of engagement and this had led to the original list of modules, many of which were undergraduate taught. This view of the Studio as a delivery mechanism for some undergraduate taught material was not shared by all partners. Further investigation through discussion with academics identified several simple problems in the practical administration of undergraduate teaching. Without the quiet discussion with the academics, these points had been lost in the larger strategic vision.

The extent of potential collaborative activities between the HEI partners was reduced significantly from the original 20 page list to 23 specific Masters level modules and 6 research groups. This list was agreed with the module or research group leaders rather than the Faculty Deans or business development staff at the HEIs. Not all of the Modules could be

delivered in parallel through the proposed Studio but it gave a valuable set of boundary conditions for the partners to make their decisions.

Additional areas of research, collaboration and funding were also identified but would be highly project specific, and outside the scope of this study. What was clear from the study was the extent to which both HEIs already engaged in collaborative bidding and thus this was not a major hurdle to overcome at the implementation level.

Additional desk research found good examples of other collaborative projects that the proposed Studio could learn from. The desk research took place in parallel to the meetings so that new information could be incorporated and fed back to people shortly after their interview.

Conclusions

The method of market assessment as used to evaluate product and service innovations worked well in the context of a collaborative innovation, with some modifications. In particular the use of interviews was more extensive than would normally be employed since the understandings and perceptions of those within the proposed collaboration were comparatively more important than 'pure' market forces.

While both Universities knew at the organisational level those modules and research groups that might be applicable to a collaboration, the fit is often dependant on specific local conditions that are not easily captured in course documentation or research centre brochures. There are also additional research interests that may not yet have consolidated into published research that represent the future direction of activity and these are better indicators of collaborative success than published material that may no longer represent a research interest.

In developing the partnership understanding, the independent approach afforded by a Knowledge Exchange provided a good platform. This may be seen as a validation of the Centre for Knowledge Exchange model as funded by HEFCE. In particular aligning strategic ambitions is a slow and necessarily careful activity. The independence and longer term focus of CKEs allows them to spend the time developing partnerships where a funding driven team within a University might not have such flexibility.

Discussion

Initial attempts to evaluate the HEI engagement had employed round-table discussion involving all the participants. These large gatherings were not productive as expected, as evidenced by the greater than 2 years from first discussions to commissioning of the QuickMark with little development in the interim. It may be supposed that these early discussions took place before a common level of understanding existing as to what the proposed Studio could be. Each organisation then came with their expectations and agenda, and this made it difficult to accommodate other agenda and resulted in a good natured stalemate.

The proposed Studio represented a new form of knowledge exchange which carried a degree of uncertainty. The collaboration was generally seen as a good idea and addressed many

socio-political and socio-economic objectives regionally and internationally. However, it was not immediately likely to be a core function of teaching and research, the traditional strengths of the Universities. This uncertainty held the Universities back from undertaking the broad evaluation of the proposed Studio's potential. The other partners in the proposed Studio (HP Labs, Watershed, Appliance Studio) had undertaken sufficient review to convince themselves but did not have the specific experience of developing strategic University partnerships to fully appreciate the complex decision making process.

By employing bi-lateral discussions, each sub-group within the Universities could describe their perspective without it being an 'official' position. From these bi-lateral discussions, points of complementarity and potential conflict could be highlighted without being in a personal forum. The interviews suggested that there was a broad and generally accurate understanding between academics of their colleagues' position and interests, both in their own and other institutions. While these individual discussions demonstrated a local understanding, none of the participants had as their remit the development of strategic collaborations.

One suggestion arising from the interviews and subsequent discussions was that the QuickMark process might be extended to include more development support. The focus of QuickMark is on initial assessment of market opportunity and expressly concludes before advising on business development decisions. Extending the process to aid strategic knowledge exchange collaboration is an area that may be worth exploring if funding can be secured.

The independence of the Centre for Knowledge Exchange has been perceived as valuable by the partners in the proposed studio. A similar process of adopting a market focus, independent perspective, and hosting trusted discussions in building partnerships is encouraged as a methodology for future collaborative developments.

The Pervasive Media Studio has now launched with the Chancellor of the Exchequer attending the Opening Ceremony in February 2008. Although the two Universities are not formally strategic partners in the Studio, over 10 academics from across both institutions are engaged in teaching and research at the Studio. In addition to these academics, others are occasional participants in teaching, research and public engagement activities. This engagement represents a tacit acknowledgement of the QuickMark findings that areas of complementarity existed, funding could be secured, and that participation would benefit both Universities and the city-region.

Notes:

QuickMark is a registered Trade Mark of the University of the West of England, Bristol.

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