

Structuring the Unstructured: Service Innovation in a UK Small Business Services Firm

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Abstract: This study focuses on structured innovation models for the services sector. A plethora of research recognizes the importance of formal and structured innovation processes (Booz et al., 1982; Bowers, 1989; Scheuing and Johnson, 1989; Griffin, 1997; Johnne and Storey, 1998; Cooper and Edgett, 1999; Cooper, 1986, 2001; Akamavi, 2005).

The literature however lacks process models that specifically address services development. Cooper and Edgett (1999) with their 'stage-gate' model attempt to provide such an approach. This generic 'from idea to launch' innovation system was generated through research in leading USA business to consumer (B2C) companies. The innovation system, whilst constructed on the basis of best practice, was not designed to meet the needs of business to business (B2B) services firms.

Alongside the lack of process models, a number of researchers claim that service firms have no process, or use unstructured, informal and often 'ad hoc' service development processes (Sundbo, 1997; Gottfridsson, 2011). It is therefore unclear whether a systematic approach to service innovation, or indeed the implementation of a model such as the 'stage-gate' (Cooper and Edgett, 1999) is useful for B2B services firms.

This study therefore reports on a case study of a small B2B services firm implementing a novel 'end-to-end' innovation system, and considers the implications for its management practices. In this longitudinal case study (18 months), we adopted a participant observational methodology (Jorgensen, 1989), with connotations of action science (Argyris and Schön, 1978). The research involved all those participating in the innovation system in the firm, including decision-makers, middle managers and employees at lower hierarchical levels and the firm's external networks.

The researchers established that a systematic approach to service innovation through structured process could meet the needs of the case study organization and it is found that such a process is appropriate and useful in the context of small B2B services firm. The paper explains the reasons why such an approach was found to be appropriate and useful, in the context of small B2B services firm. A better understanding is provided of how small business services firm can adapt and improve the usefulness of such a structured process.

Key words: innovation, services, new service development, B2B, small business

1. Introduction

In the last 20 years the developed economies have moved towards a service economy (OECD, 2000). The service sector accounts for 75% of the UK GDP (ONS, 2011). Innovation, in the form of new goods, services, processes and business models, plays a key role in firms' growth (Ansoff, 1965; Drucker, 1985, 2007). Innovation capability, meaning the ability to consistently deliver innovations, is vital for firms to thrive today's dynamic, uncertain and competitive business environment (Hamel and Prahalad, 1996; Hamel, 2006).

Innovation has been explored extensively in the context of the manufacturing sector (e.g. Abernathy and Utterback, 1978; Christensen, 1997; Benner and Tushman, 2003). Service innovation is a neglected area of study by scholars and practitioners alike (Chesbrough and Spohrer, 2006). The exception being some work conducted in financial services development (e.g. de Brentani, 1993; Edgett, 1993, 1996; Akamavi, 2005). Innovation in the context of service sector remains therefore unexplored and relatively immature as Tether, Hipp and Miles (2001) suggested a decade or more ago.

The paper, first, provides the theoretical background of the study. Next, the case study organization and the research methodology adopted are outlined. It then describes the initial steps undertaken to implement a structured service innovation process and the current innovation practices within the case study firm. The paper, finally, reveals the problems and issues identified with the small business services firm's unstructured approach to service development, and illustrates the emerging structured innovation process that brings a greater improvement to the service innovation activities. Implications for researchers and managers focusing on structured innovation models for the services sector are also presented.

2. Background

Given the manufacturing dominance, a plethora of research recognizes the importance of formal and structured innovation processes (Booz et al., 1982; Bowers, 1989; Scheuing and Johnson, 1989; Griffin, 1997; John and Storey, 1998; Cooper and Edgett, 1999; Cooper, 1986, 2001; Akamavi, 2005). An extensive body of literature on models for the development of goods exists (e.g. Booz et al., 1982; Cooper, 1986, 1994, 2001; Crawford, 1987; Pessemer, 1977). In particular, Cooper's 'stage-gate' model (Cooper, 2001) is well-recognized amongst scholars and practitioners. Stage-Gate International (2012), founded by Cooper and Edgett, claims that the 'stage-gate' model is the "world's most widely implemented innovation process" within large multinational companies. These claims are, of course, made by a consultancy having a vested interest, but the range of firms using the system is extensive.

The literature lacks models specifically addressing the development of services, with a few *conceptual* models proposed in the '80s (e.g. Bowers, 1989; Scheuing and Johnson, 1989). Cooper and Edgett (1999) attempt to provide such an approach by tailoring Cooper's (1986) 'stage-gate' process model for goods to the business to consumer (B2C) service sector such as insurance, banking and telecommunications. This generic 'from idea to launch' system (See Figure 1 below) was generated through research in leading USA companies. Based on the researchers' experience in the development of models for the manufacturing sector, they proposed a *practical* end-to-end process model for product development for the service sector. Their process model is a stage-gated system, where a potential new product passes through a series of stages and decision points before it can be launched in the market place. It is claimed that this new product development (NPD) process is rigorous and formal and maximizes the service development productivity (Cooper and Edgett, 1999).

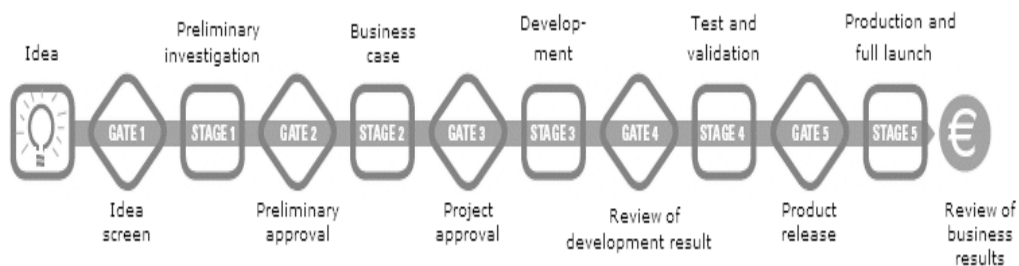


Figure 1: A generic stage and gate process model (Cooper and Edgett, 1999)

This innovation system, whilst constructed on the basis of best practice, was not designed to meet the needs of business to business (B2B) services firms. There is little literature available on the implementation of systematic innovation processes in B2B companies. Perhaps one of the arguments that could be adopted is that the innovation of goods is easier to define in terms of development stages.

Alongside the lack of process models, a number of researchers claim that service firms have no process, or use unstructured, informal and often 'ad hoc' service development processes (Sundbo, 1997; Gottfridsson, 2011). It is therefore unclear whether a systematic approach to service innovation, or indeed the implementation of a model such as the 'stage-gate' (Cooper and Edgett, 1999) is useful for B2B services firms. This paper aims to establish if a systematic approach to service innovation through structured process could meet the needs of a particular services firm, or not. The following case study is provided to illustrate the applicability of the process in the context of small B2B services firm.

3. The case study of Delta

The UK based small business services firm in this study is named 'Delta'. Delta's main business was to deliver business support services to the private sector on behalf of the UK public sector organizations (e.g. local government). Founded in 1996, the firm was acquired in by its own management in 2000 and in the period 2007 – 2008 had grown significantly, where major income was achieved by winning long-term public sector contracts. These contracts involved delivering business support services predominantly to other SME firms in the private sector. Typical services included leadership and change advisory services, skills advisory services and training. The company has also increased the number of employees from 7 to around 50 on 3 sites across the UK. Turnover in 2010 was around £2 million.

In 2008, Delta sensed the need to diversify its customer segment and start delivering own new commercial services. In the period 2008 – 2010, firm's senior managers together with one of the authors of this paper developed a project proposal outlining a project plan for the identification, design and implementation within Delta of novel business processes. These processes were aimed especially for service innovation, identified as the primary drivers for business growth, particularly in the private business to business (B2B) arena.

Due to the economic and financial situation worldwide and the cut backs announced in 2010 by the UK government, for Delta there was a real need to diversify its customer base by directly targeting SMEs with its own commercial services in order to reduce its reliance on public sector contracts.

The company recognized that it lacks knowledge and expertise to address key issues such as:

- *'how to develop innovation capacity and capabilities;*
- *expertise in implementing best practice in service product and process innovation to achieve a fully integrated service design process and procedure;*
- *knowledge and experience in systems development;*
- *market research capability to provide insight into prospective public and private sector customer needs;*
- *the awareness of and expertise in using business tools that will facilitate the company's re-invention/repositioning as a business services company and launch into new markets'.*

Therefore, the firm's owners approached the local university and established a knowledge transfer partnership that culminated at the end of 2009 in a partly funded innovation project and in March 2010 the project commenced. A case study research methodology was adopted.

In the project team were senior managers from 'Delta' and the authors of this paper. The purpose of the re-engineering and implementation initiative was to bring new innovation process within Delta for use as a systematic approach to service development, viewed as a strategic platform for sustainable growth. This case study provided rich material for research into the application of cutting edge

methodologies such as the 'stage-gate' in the context of small B2B service firm, and allowed developing theoretical perspectives and empirical insights.

In this longitudinal case study (18 months), two main approaches i.e. participant observation (Jorgensen, 1989), and action science (Argyris and Schön, 1978) were combined to allow both the exploration of the issues involved around the implementation of the service innovation process, and assessment of how the small business services firm can adapt and improve the usefulness of the process itself. The research project involved decision-makers, middle managers and employees at lower hierarchical levels and the firm's external networks.

In the spirit of ethnographic research, qualitative and quantitative data was collected and evidence was derived through methods such as semi-structured interviews, questionnaires, documentary analysis, discussions as well as participant observations (Gummesson, 2000).

4. The innovation management practices within Delta

In the period April - May 2010, a review of the firm's current and future strategic position was undertaken by one of the authors of this paper. This strategic clarification process was commenced as it was considered crucial for establishing the new service innovation process requirements and to provide a means of detailing the scope for the service development activities. Thirty two responses from senior and middle management, staff in 3 locations and the firm's external network were received to the questionnaire. In-depth interviews and discussions were carried out with the Board of Directors, including the three managing directors/owners, the business development director and the director of business operations.

The stage-gated process of Cooper and Edgett (1999) was identified from the literature as a well-developed model where detailed information about the different stages within the model can be accessed. It was also a model that could be used as the foundation of an action science approach, which creates alternatives to the 'status quo' (Argyris and Schön, 1978). The stage-gated process was presented to the Delta's decision makers and they agreed that this model can be implemented in the organization for systematic service innovation; an implementation plan was developed and approved by the management committee.

In June 2010, the report was presented to the Board of Directors outlining the key strengths and areas of improvement in the firm's internal environment and key trends and opportunities in the firm's external environment. After thorough discussion of the report, the proposed recommendations and action plan were approved by the Board. The discussion was followed by a presentation of the end-to-end innovation system proposal and awareness rising of the importance of structured service development process.

Late in June 2010, a formal facilitated brainstorming session was held as part of the proposed action plan. More than a hundred ideas for new services were generated in less than two hours, by seven senior and middle managers.

In the following months, senior managers sidestepped the design and implementation phases of a formal service innovation process. They saw an opportunity for Delta to develop some of the ideas proposed at the brainstorming session without a formal and structured methodology. The reaction was:

- *'we know what we are doing'*
- *'we need to see quick gains'*
- *'we are already innovative'*
- *'we don't have time to get involved in formal process'*

In the following months, the researchers also took part in the service development activities, as this was seen as an opportunity to assess how innovation activities are happening within Delta, without a structured service innovation process. The researchers considered that the practical *experience* and *testing* of ideas for services with potential customers is beneficial to the organization. This would have enabled Delta to bring new experience and knowledge for integration into the design of the innovation system.

The observations, between July and December 2010 (6 months), showed that no new services were launched. Most of the initial projects for the development of new services were put on hold; decisions were delayed or projects were not resourced well enough to be moved forward appropriately. A general feeling of de-moralization and frustration was building up within those involved in the innovation activities. This led to recognition of the need for a different approach. The following section illustrates the emerging structured innovation process within Delta.

5. Structuring the Service Innovation Process within Delta

The experience of working without a structured process led to a strategy workshop for senior managers being held, to discuss the key problems/ issues with the current innovation practices. At this workshop, case examples were reviewed of best innovation practices such as 'stage-gate' process, and awareness was built of the need of something similar for Delta due to inadequacies and limitations of the firm's current innovation process and the surfacing problems and frustrations associated with it.

A number of problems/issues were identified with the current unstructured approach to service development. These are summarized below:

- Idea proposals were not selected on the basis of open and transparent selection procedures and criteria.
- 'Ad hoc' approach to project initiation and prioritization.
- Unclear process as to the development of new services.
- Unclear responsibilities and lack of project leadership.
- Disconnection between the execution of innovation projects and other current operational projects.
- Lack of team work and cross-functional involvement.
- Development work executed within silos; as a consequence different people working on the same or similar development activities.
- Idea/project proposals were approved informally without recognition/connection to other projects, which also required development effort by more or less the same people.
- Too many idea/project for the limited resources.
- No clear focus or overarching business strategy to support ideas funneling.
- Business decisions typically made 'ad hoc', without rigorous and explicit analysis or constructive debate and, rarely, definitive outcomes.
- Lack of strategic consensus between senior managers/owners.
- Critical decisions to enable project progress were made slowly or not at all.

At the beginning of the workshop, the senior managers had different perspectives on what innovation system is, these were articulated as follows:

- *'Eureka moments – 'ad hoc' innovation'* (Managing Director/Owner[1])
- *'Structured way of doing business'* (Managing Director/Owner[2])
- *'Letting go old habits, being aware'* (Managing Director/Owner[3])
- *'Ways of converting ideas into profitable business'* (Head of Enterprise)
- *'System is a vehicle to commit'* (Business Development Director)
- *'Ways of improving culture and performance'* (Director of Business Operations)

When asked if Delta needs an innovation system, the answer was expressed by one of the managing directors in the following terms:

'We have an innovation system for the public sector...Structured way of doing but reactive. It is like a mid-range family saloon which works for our roads but we cannot go far away... [but] ...We don't have an innovation system for the private sector ... We need a new vehicle for change that is fit for purpose'

During the workshop, shared business goals were shaped and what might be the obstacles in achieving these goals were outlined. This strategic workshop culminated in creating a shared 'vision'

of what could be developed as a service innovation process and how it could work in practice. The Board of Directors and Head of Enterprise participating in the workshop expressed support and commitment to the implementation of a structured process to service development.

After the initial failures in developing new services, the senior managers understood that the company was not realizing the benefits of innovation. Therefore, they had to change their actions and behaviours and increase their commitment to improve execution and yield positive results from the innovation process. It seemed evident that senior managers started to understand the benefits to the business that such a structured process can bring and grasped that this initiative will require substantial investment of time and resources.

One researcher's responsibility was to implement the new innovation process within the firm and to guide those involved in the innovation activities through the series of different 'stages' and 'gates' of the staged-gated process.

A conceptual design of an innovation system, including procedures, sample documentation and tools were developed and implemented to support the different activities involved in such a process such as: idea generation, idea selection, writing a business case and decision reviews. Other aspects of the new system such as project planning and management, team work, learning and creative thinking were also addressed with in-house training.

The conceptual design of the service innovation process included key features of 'best practice' and was built from researchers own experience and involvement in developing new service/ new market for Delta and other organizations. The need for a stage-gated system that accelerates the process 'from idea to launch' through an informed and timely decision making was seen as crucial. The need to develop and launch services on time and within budget, is indeed what ultimately drives the success of a business.

Key elements of Delta's innovation system for the private sector were identified and their applicability within the firm were discussed. Some requirements, made by the senior managers, related to the new innovation process were also taken into account for the process design:

- *'Brings teams together'*
- *'Easy to use'*
- *'Easy to understand'*
- *'Simple'*
- *'Help us capture and share ideas'*
- *'Make us money'*
- *'Flexible'*
- *'Enable us to share knowledge and learning'*

In the following months, from February to April 2011, eight workshops were delivered involving in total twenty-eight participants, including senior management, middle management and staff at lower hierarchical levels within the organization. During these workshops, major process activities were explored and their applicability in the firm considered by using dummy services.

At early steps of the process implementation, the different prescribed activities (see Figure 1) were skipped or not fully completed by those responsible for the development of new services. Some senior managers also sought ways of circumvent the process by introducing projects without putting them through the process. This had a knock on effect on the previously approved projects through the innovation process that were using the same resources. Initially, the different stakeholders involved find it difficult to comply with the procedures, rules, and paperwork that were brought in with the introduction of a structured service innovation process.

From May 2011, the initial hurdles were gradually overcome. This was achieved because of the help of the researchers who were providing appropriate guidance, with one of them also acting as process manager. A change of behaviour and mind-set to developing new services through a formal process were noticed in senior managers/owners and rest of the organization. The reasons for these changes might have been for several reasons: grasping the benefits that such a systematic methodology can

bring to the company or initial lack of confidence in evaluating business ideas (overcome by using the proposed tools for idea evaluation and decision). This newly gained confidence allowed more new ideas to be selected and new service projects to enter the innovation funnel and being systematically evaluated, prioritized and appropriately resourced.

For instance, a major development to the firm's practices was the introduction of 'innovation challenges'. These initiatives were launched by selecting the most promising ideas from the 'Idea Bank'. This had resulted from the prolific idea generation activities. These 'creative challenges' were advertised internally and aimed to recruit volunteers to take part in the further developing the selected ideas. Partly, the teams were formed by including those who have proposed the ideas and partly by those who volunteered to take part. During one of the 'innovation challenges', two ideas were selected and two competing teams were created for the development of each of the ideas. Creating positive competition between the teams raised the stake and excitement within the organization. Both teams showed high level of enthusiasm, openness, commitment and creativity during the development of new services. In particular, one of the teams made a greater progress than the other team. For instance, team members have spent many hours in thinking, discussing and structuring their idea proposal by using the proposed tools (e.g. idea proposal, business case, project plan). Their proposal was based on facts and information instead of gut feeling. From the decision makers the team was expecting:

'Guidance on where my priorities are – effective use of our time plus priorities...We also need more guidance from the screening committee' (Call Centre Manager)

'Realistic in their expectations, Reasonable assessment of the proposal such as risks and opportunities, Outright agreement – clear yes and/or clear no, Consistency across the panel.' (Business Development Director)

Their business case was sent back for revision, after the first decision review, and further research and analysis were carried out by the development team. At the following gate review the team suggested a new model for staff recruitment that was required to deliver the proposed new service.

In relation to the new innovation process the business development director said:

'the innovation system helps us think through. We were able to come up with more advantageous proposition (e.g. look what other companies do)'

In less than 1.5 months, the project proposal was approved for implementation and in less than 3 months a new division was set up to and the new service was launched.

Senior managers had also recognized that structured process for service development *'makes sense'* and *'it is useful approach to accelerate the development of new service from its conception to its launch'*.

With the implementation of the new structured process, the service innovation activities within Delta saw a greater improvement. There were two explanations. Firstly, the introduction of the stage-gate processes itself. Secondly, the implementation of the innovation system through the techniques of 'innovation challenges', the use of competing teams and employee engagement. Such a systematic approach for service innovation was found to be appropriate and useful in the context of small B2B services firm for a number of reasons:

- Applicability of structured model to small service firm settings.
- Deep understanding of the market place and customers' needs, which inputs are uncovered/incorporated throughout the innovation project.
- Deep understanding of firms' strength and weakness, opportunities and threats and formulation in a strategy plan. SWOT needs to be taken into consideration to provide a framework for generation of new ideas and help focusing innovation effort.

- Implementing a structured idea generation process and linking it closely to the stage-gate process is an important factor for a continuous process pipeline supply and effective process management.
- Companywide training on creativity. For example, creativity is skill that needs to be nurtured and applied not only at idea generation stage, but also used in the development stage, as by applying creativity to the solution of customers' problems can help delivering services that match customers' requirements.
- Training on project planning and management and standard project management methodologies were implemented for all innovation projects.
- The process became supported and embedded within the culture of the organization.

6. Conclusions

This applied research has provided an opportunity to the researchers to learn more about the 'stage-gate' methodology and have a first-hand experience of the challenges that service firm managers experience in implementing novel innovation process. Some authors criticize the 'stage-gate' process of being too formal and lacking flexibility. Some practice evidence suggests that in larger organizations, when the process has been already implemented, there was a general perception that the new product development became less about execution and more about formalities, rules and paperwork. However, this may be correct for when the process is already up and running; therefore process managers should look to introduce process improvements and flexibility but at early stages of implementation trying to be too flexible there is a risk going back to unstructured ways of service development.

The researchers established that a systematic approach to service innovation through structured process could meet the needs of the case study organization and it is found that such a process is appropriate and useful in the context of small B2B services firm.

This paper provided a better understanding of how small business services firm can adapt and improve the usefulness of such a model. The process brought a new level of awareness within the service firm toward service innovation, and a greater synergy among different stakeholders and departments across the organization. Clearly formal and structured innovation processes are important and useful to small B2B services firms. These processes bring structure where chaos can easily be built up and frustration arise. Service innovation involves complexity of activities, decisions and internal and external interactions; indeed it is questionable whether innovation can exist over a long time period without such systematic processes. Service firms, independently of their size, therefore need to adopt a structured approach in order to develop service innovations on a consistent basis.

7. References

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