Driving Service Agility:

A longitudinal case in Yell

Dr Sharm Manwani
Henley Business School
University of Reading
UK
sharm.manwani@henley.com

Robert Carr
Head of Information Services
Yell
Reading, UK

Abstract. **Organizations require effective service management in order to meet business service levels and reduce costs in the operation of information systems. There is a growing body of knowledge that describes the rationale and the outcome of these experiences. These cases indicate that the capabilities and processes of the organization are important factors in achieving success. Our review of the literature considers both the hard and soft factors such as service processes and trust in service partners. These factors are explored through a longitudinal case study designed to provide insights into how the environment sets the parameters for service management. The selected case analyses the organization changes to its service management approaches during a period of several years. Results are discussed from both practitioner and theoretical viewpoints with proposals for further research.**

Keywords-component; service management, frameworks, agility

I. SERVICE MANAGEMENT INTRODUCTION

Services are becoming increasingly pervasive in organizations and society, driven partly by technologies exploiting the internet, mobile computing and enhanced security software (1). Information technology is also changing the nature of work in services organizations yet there are many challenges for IT service providers that make it difficult to gain trust from their customers. In the implementation stage, training and trials help to deliver a better service to customers; support needs to be maintained in the operational stage. This focus on service combined with building relationships is most likely to engender trust (2).

A broader approach is required to effectively deliver the whole package of IT services to internal customers. There has been significant support for improving service processes, exemplified by the growing use of the ITIL (IT Infrastructure Library) framework which provides support for IT Service Management. ITIL version 2 distinguished between service delivery and support while version 3 has expanded the scope into a lifecycle approach that starts with the service strategy. In version 2, service delivery has a focus on the end user as the customer whereas service support considers the business organization as the customer covering issues such as finance and overall availability (3).

Table 1 shows the target objectives of the processes within service delivery and support.

Table 1: ITIL Version 2 (adapted by authors)

Process	Goal
Service level mgt.	Create and monitor service level agreements
Financial management	Budget and monitor the financial aspects
Capacity management	Match IT capacity to agreed service levels
IT Service continuity mgt	Manage risks that impact IT services.
Availability mgt.	Define & monitor availability of IT services.
Service desk	Address user queries and issues
Incident management	Capture and monitor incidents to resolution
Problem management	Address underlying problems causing incidents
Change management	Manage approved changes to the service
Release management	Implement new releases of the system
Configuration mgt.	Track components of the IT services

One of the key service management decisions for an organization is how to source its capability. Three strategic intents can be articulated for appropriate sourcing: firstly improving the performance of IS, secondly exploiting IT assets and thirdly using IT to achieve better business results (4). A survey of organizations found over 30% cited cost savings as a reason for outsourcing, and nearly 20% wanted access to skills (5). On the benefits side, over 10% cited service quality, and over 6% mentioned skills and knowledge as the areas with which they were most satisfied.

Although key, this does not address the need for agility, defined as the ability to deal with fast business change (6). The core question addressed by this research is how to enhance service agility to satisfy business demands. Based on this question of service management, the next section proposes a research method and then describes key elements of the case prior to an evaluation discussion and conclusions.

II. RESEARCH METHOD

A. An Explorative Method and Longitudinal Case

Our aim is to apply a longitudinal perspective as an aid to understanding the service agility approaches in an organization. Given the exploratory nature of this research, we selected a single case study to aim for a depth of understanding.

"The critical questions seem to be ones of information management strategy….one way of doing such managerial research is through case studies. They allow multi-disciplinary, integrative enquiry…Longitudinal case studies therefore could be valuable if theory development is in part making sense of firms' actions." (7)

We believe that selecting an information-intensive organization as a case study supports this positioning of an integrative enquiry that provides a small step towards theory development.

B. Selection of Yell as Subject Organisation

The following description provides a historical view of Yell's journey as an organization.

'Yell began life in 1966 as a 'Yellow Pages' section in the Brighton telephone directory. Yellow Pages, as part of BT, grew to become the UK's leading provider of classified directory advertising and associated services. In April 2000 the Yellow Pages division of BT became Yell and in June 2001 Yell was purchased from BT by a consortium of private equity investors. In July 2003 Yell was listed on the London Stock Exchange and became Yell Group plc. Although we are best known for our printed Yellow Pages directories, we offer an integrated portfolio of printed, online and phone-based products and services. The printed Yellow Pages directories, our Yell.com website and our operator-assisted telephone information service 118 24 7, ensure people have access to the information they need whenever and wherever they want it, and provide advertisers with access to high quality sales leads. To find out more about our products and services, please see the Yell UK product pages. Whilst our company has been built on the strength of our brands, people are the heart of our business and as at March 2009 we employed more than 5,300 people in the UK. From our head office in Reading, Sales head office in Slough and seven main offices in key locations, highly-trained, professional teams work to provide a world-class service to our advertisers and users throughout the country.' (8)

Given this strong business focus on providing a world-class service, we consider that Yell is an ideal case for a service management study. Further, Yell's Information Services (IS) group can be regarded as an exemplar by virtue of winning the Computing 2004 IT Department of the Year award (9)

C. Data Sources

Since this is a longitudinal case, we deem that the perspective of the second author is an important factor. The second author was a senior manager in the IT group throughout the period of the case study. This assists in generating deep insights through an action research perspective which collects data on business problems in an organization setting and helps to address the shortage of practitioner-focused research (10).

The research has two main checkpoint periods. The historical information presented in this case relates to Yell's winning submission for Computing's IT Department of the Year award. Objective documented evidence was presented for this award that was independently assessed by experienced IT practitioner judges.

During late 2009 and early 2010, the second author commissioned a Service Management review which was undertaken by the first author.

The terms of reference covered the following scope (11). 'Yell operates in a competitive marketplace which with changing technologies is more uncertain than in previous years. In response, Yell is undertaking a major business transformation which has major implications for IS, both in terms of enabling key programmes and its internal operating model. This will require IS to be more agile in order to deliver tangible business benefits in a faster and more flexible manner. The review has the goal of evaluating the requirements of the path towards agility and the capability to meet these requirements. The capability review will cover the hard and soft elements.'

The second phase field research involved six interviews: three with senior IT service managers and three with business stakeholders of the IS groups. Alongside this there were three focus groups held with different teams in the IT service management groups. Additionally access was provided to key documents such as service level agreements and service performance reports.

Three main questions were addressed by the research.
1. What does agility mean for service delivery?
2. What are the issues related to service agility?
3. How can constraints be removed and agility improved?

III. YELL'S SERVICE MANAGEMENT JOURNEY

A. Periods of Change

Yell's market, business and IT challenges evolved during the first decade of the new millennium. In hindsight, we can identify two major periods that drive the key service management approaches and results

B. Best-in-class processes: 2002-2007

During this first period, Yell was operating in a buoyant marketplace. Hence it had the financial standing to make major investments in Yell's infrastructure and processes. Yell's submission for the Computing award confirmed this. 'IS provides the operations and CTI (computer-telephony integration) infrastructure for these on-line services, with best-in-class availability. Results did not happen overnight. Industry standard (ITIL) processes have evolved since 1998 and IS is now rated best in class in service management. Processes underpin measurable and improved service level agreements. Yell's commitment is emphasized by all senior IS managers gaining at least the Foundation Certificate.'

The results of this approach are exemplified by Figure 1 which shows the top 20 ITIL performers based on audits conducted by an independent organization.
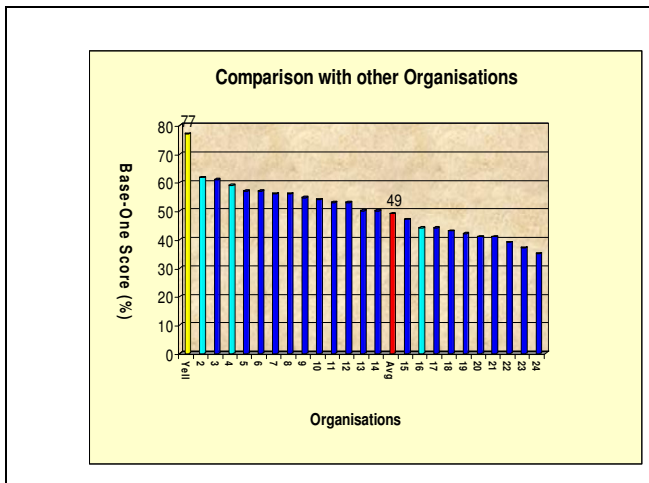

Figure 1: Comparison of ITIL process capability

The chart highlights that the Yell IS ITIL process rating of 77% was 13% higher than the next highest performer.

Also included in the submission were service performance reports showing that operational availability was consistently close to 100%. While service management was not the only factor in Yell winning the prestigious IT Department award, it was certainly a major contributor.

During the latter part of this period. the IS organization looked to improve service without increasing costs, moving towards an IS-Lite model. This was first proposed in a Gartner research report and promised greater IS agility and cost efficiency. Linked to this goal, Yell was able to leverage its mature processes when selecting outsourced partners. As a result, Yell significantly reduced their fixed costs moving to a larger proportion of variable costs. In summary, IS was able to achieve a consistently high performance due to the maturity of its processes in line with ITIL. This process competence was important in the next phase with greater demands for agility and cost reduction.

C. Responding to Market Changes: 2008-2010

During this second period, it became increasingly clear that Yell's service management needed to respond to a changing marketplace. There was an evolution from a position where the printed book was central to the product proposition to one where the internet became a growing service offering.

A key implication of this change was more challenging service pressures geared to meeting on-line service levels for customers. Critically, it involved moving from a stable and profitable print model to a very competitive new on-line model. This dual pressure for a more responsive service with lower cost investment necessitated a different approach, hence the focus of the review on service agility. The findings from this review follow.

1) What does agility mean for service delivery?

One definition of IT agility is the ability of a firm to adapt its IT capabilities to market changes (12). The interviews and workshops with IT service managers in Yell provided a variety of definitions for agility. At the basic level, it was seen as speed or reaction and quick delivery from Yell IS services to problems and new demands from internal and external customers.

2) What were the issues with service agility?

One key issue identified by the business stakeholders was how to measure service performance. Traditionally, this is supported through creating and monitoring service level agreements. These may be formal contracts in the case of external suppliers although this is not a substitute for effective relationships (13).

The Service Level Agreements (SLAs) in Yell typically measured overall availability of the services over a period of time, such as a month. A few minutes downtime at the end of the month would mean that the service level was met, but when this happened at a critical financial month-end process, the impact was highly significant.

The customer services manager made another point about measuring performance. She highlighted that having the system available for use was not enough if the response time was too slow or if the quality of data in the system was poor. This latter issue is potentially a major headache for IT service departments since data ownership can be unclear, and this was partly the case in Yell. It was also felt that tangible measures of performance did not address the perceptions of users about the responsiveness of the IT service personnel.

3) How can agility be improved?

Through the interviews and the focus groups, three opportunity areas were identified: people, process and technology. The people perspective included the use of flexible resources (servers, people, network etc) and processes to allow headroom to enable reaction to change. Flexibility is enhanced by having multi-skilled individuals, not operating in silos. Skills are not enough; people need to demonstrate the right sort of behaviors including a 'can-do attitude.

From a process perspective, this needs to apply across all the areas: the capturing and prioritization of demand, the scheduling and resourcing of work, and the evaluation of performance. Just as systems development has extended structured processes into agile processes, the same applies to service management. It is the appropriate mix of structured and agile that ensures effective service delivery. For example, pre-planned maintenance windows, where work can be slotted in, help to enable timely systems enhancements.

It is also important to make best use of the technology to enhance agility. This might mean having hardware that provides room to increase transaction. However in today's world the processing power is more likely to be outsourced and this was true in Yell with an exploration of the benefits of cloud computing.

Standardization is sometimes seen as the antithesis of agility since it limits the variety of available hardware and applications. However Yell's service management head argued that having a standard platform made the addition of new applications and services much easier. A similar argument was put forward for simplifying technologies whenever possible.

D. Rethinking Service Level Agreements (SLA)

It was recognized by the Yell service management team that the existing SLA format was not designed to meet the customer perception of usability nor was it appropriate to encourage service agility. The document was several pages long partly because it repeated many of the core infrastructure service levels rather than focusing on the specific service. Furthermore it only had availability measures and did not highlight what needed to be done to improve the service.

A new format was created as summarized in Table 2 which contains sample data for one of the services. This distinguished clearly between a comprehensive but concise description of the service and an analysis of performance from a customer perspective for review with the business owner.

Table 2: Revised service level agreement

AREA	GOAL/COMMENTS
Description	Provision of application to sell adverts
Business Owner	Telesales Manager
IS Accountability	Service Manager for Sales function
Responsible Support Roles	Servers & Network Telephony. BW. SAP & ORACLE. System Delivery. Desktop Support. Application Support
Key Customers	Telesales
Frequency/Trigger For Service	Daily - BW data load to update the data store.
Scope	Aid Telesales to sell and renew ads with high customer responsiveness
Impact Of Failure	Unable to provide timely information to Telesales, resulting in loss of revenue
Dependencies	Shared core infrastructure
Status & Plan	Changing telesales requirements need to be captured
Service Review Actions	Worklist response times poor.
Current Issues	User interface needs to provide targeted information in a faster manner
Metrics	
Availability	Good availability
Performance	Acceptable response times
Application Quality	No major bugs
Information Quality	Issues with customer master data
Responsiveness	Telesales looking for quicker response to current problems

This new format was welcomed both by the IT service managers and the key business stakeholders. It provided an insight into the core goals and issues, supporting a more agile approach to service changes.

IV. DISCUSSION AND CONCLUSIONS

In this section we reflect on the differences in the two periods and the insights to be gained from Yell's approach to driving service agility.

A. A ContextualApproach

This paper presents a rich longitudinal case which, in the authors' view, generates key insights into the importance of a contextual approach to service management. There is a tendency with current service management practices to assume that a greater focus on predictable processes is the direction that IT departments should aim target. This is exemplified by the Capability Maturity Model which has five levels related to the process maturity of the IT organization (14). Further the use of generic service level measurements for availability often implies that a very high service is the ultimate target of an organization.

 This traditional view was supported in our evaluation of the first period under review. Yell scored exceptionally high on both process and availability dimensions. It evidenced best-in-class ITIL processes and consistently high service levels in winning the IT Department of the Year Award. In this type of environment, the need is for IT professionals whose core competence is to understand and follow processes. Yell's service team demonstrated this capability.

However, the challenging market environment in the second period necessitated a different approach. The need for the business customers of IS was to respond quickly by delivering new products and services. In this context, best-in-class but rather rigid processes and very high but expensive service levels were not the most appropriate way of meeting the business needs and building trust with internal and external customers. Recognizing this shift, Yell IS's focus moved to more flexible and cost-effective service management. This had significant implications for measurements, processes and people. In effect, Yell targeted both time and range ability (12) with the aim to respond quicker but also provide a wider range targeted at the specific service needs.

Furthermore, through the revised service level agreements, IS nominated service managers who were accountable both for the service and for client relationship management with the business owner. The revised SLA and the interviews with business stakeholders demonstrated that this approach was paying dividends. Our conclusion is that the dual perspective on improved service process and enhancing service relationships aligns with the service management theory on building trust, although we have applied it in a different context. The comparison of the two periods highlights the need for a contingent approach to service management, one that recognizes the different business environment.

B. Practitioner Insights

We propose three main practitioner insights from the research. The measurement of a service is a point of much debate. From a customer perspective, service is seen to comprise the following measures: Availability, Performance, Application Quality, Information Quality and Responsiveness to Customers. We conclude that all of these areas need to be right in order to achieve customer satisfaction. Furthermore, the service has to be targeted to the business benefits of the organization by demonstrating how these are being realized or impacted by failure.

The second insight is that historically, IS has typically looked inwards by addressing service problems that are linked to a technology component without considering the impact on related services and hence all of the customers of that service. In practice, accountability for delivery of customer facing and component services is shared between several IS departments. No single IS department has the end-to-end responsibility or the line of sight for these services. Hence it is important to define what components constitute a services and who is accountable for each of the services. Furthermore, this service needs to be defined and focused on the end customer experience.

Our third insight was that customer facing services could be categorized as Products, Public Facing Services, Business Processes and User Productivity. Each of these service groups has different characteristics hence they required tailored approaches to enhance services. Yell product services are for consumers such as Yell.com. Public-facing services are for customers and partners such as E-Channel. Business process services are for internal customer functions and rely on IT applications such as SAP R/3 and CRM. User productivity services are aimed at individuals and include email and personal devices. We found that it is generally easier to take an end-to-end view for user productivity services than it is for services that rely on a complex set of integrated applications. Therefore a tailored and contingent approach is needed.

C. Limitations and Future Research

Our goal was that the analysis should provide insights into service management approaches within a context of changing market pressures. The senior management role of the second author helps in gaining insights but increases the risk of a biased viewpoint. We believe, by using data from an award submission backed by documentary evidence, that this offsets the concern about potential bias in the first period covered by the research. In the second period, the combination of interviews and focus groups led to challenging debates and insights which provided diverse inputs to contrast with the views of the second author.

Working with a single organization provides a depth but not a breadth of study. The authors therefore recommend further longitudinal research in other organizations to expand the data and provide a contrast to the experiences of Yell. In particular, we would welcome research into public sector and not-for-profit organizations to assess if similar patterns of market stimulus and service management response exist in both types of organizations. This should be extended to international settings.

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