

Internal Customer Service: The Potential for E-Service

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Abstract

This empirically based paper is concerned with the application of the notion of internal customer service, purchasing and procurement, to e-services. It contends that much of the recent research into e-business, and e-service in particular, has taken a primarily external customer focus. Reports suggest that the greatest potential of e-business comes from applications within and between businesses. The findings are based on data collected in an extensive research programme from interviews, cases and focus groups in 97 organisations. It has shown that contrary to views of the traditional purchasing and procurement functions, e-service improved customer perceptions of service through faster and easier service with speedier resolution of problems, improved process reliability with reduced mean time between failures together with overall cost reductions.

1. E-Service and the External Customer

Recent e-service research has been primarily concerned with the provision and development of service between an organisation and its *external* customers. Voss [1] for example developed ten key steps in the development of an e-service strategy to help create outstanding web-based services. Mieczkowska and Barnes [2] investigated issues of customer participation in the delivery of library services. Sousa [3] whilst concerned with the quality of the customer's experience considered the issues for service design. Verma et al [4] investigated the value added features e-services need to provide to gain market share and profits. Zhu et al [5] developed a model linking consumer-perceived quality with e-service to the SERVQUAL dimensions. Walker et al [6] investigated the reasons why consumers accept or reject technology. Electronic customer relationship management (CRM) whilst recognising the potential for data mining, improved segmentation and one-to-one marketing appears to have been primarily concerned with managing the relationship and indeed the contact with customers [7] [8].

It is interesting to note that the manufacturing-based electronic commerce literature has been much more internally focused concerned with, in particular, the implications for process design [9] [10] [11] [12]. Even more interesting is the conclusion reached by such authors, summarised by Barnes et al [11] "e-commerce is tending to automate, rather than redesign existing

processes: e-commerce operations tend to be run as discrete processes, with little or no integration between traditional and e-commerce business processes and their respective information systems organisations often display confused and often contradictory motives for e-commerce; there is little measurement and evaluation of e-commerce performance". Despite the internal focus of much of this work the internal customer service perspective seems to be missing.

2. The Importance of an Internal Customer Perspective in E-Services

Although understanding the impact of e-service on the external customer is important and not in dispute, data from research organisations such as Forrester Research and Gartner, has demonstrated that the greatest potential from e-business will be in B2B applications both within (i.e. internal services) and outside the organisation.

Recognising the importance of internal services is not new. The importance of the internal customer has long been accepted as a key issue in operations design and improvement. "For an organisation to be truly effective, every single part of it, each department, each activity and each person and each level, must work properly together, because every person and every activity affects and in turn is affected by others" [13]. Central to this is the notion of the internal customer "every part of an organisation contributes to external customer satisfaction by satisfying its own internal customers" [14]. From a marketing perspective this internal customer notion is also well-accepted [15] and has led to the concept of internal marketing [16]. However the application of the notion of the internal customer to e-business, and e-service in particular, is relatively new.

The object of this paper is to evaluate an application of e-service to internal services in order to assess if such developments can not only improve the quality of service provided but also reduce the cost of doing business.

3. E-Procurement

E-procurement has been the subject of a great deal of research but again this has focused on the development of inter-organisational electronic networks. Malone, Yates and Benjamin [17] argued that the developing inter-organisational electronic networks would improve co-

ordination between firms to reduce the costs of searching for appropriate goods and services (they call these *electronic brokerage effects*). Consequently, they claimed that one of the major effects of inter-organisational networks would be a shift from hierarchical to market relationships. "Some of the initial providers of electronic markets have attempted ... to capture customers in a system biased towards a particular supplier. We believe that, in the long run, the significant additional benefits to buyers possible from the electronic brokerage effect will drive almost all electronic markets toward being unbiased channels for products from many suppliers" [17,p.492]. Brousseau [18] reviewed 26 inter-organisational networks, finding that most were used to reduce production or distribution costs and served to reinforce already existing hierarchical relationships among firms. Only in two, the petroleum business and textiles, was the use of inter-organisational networks associated with buyers gaining advantage by having more suppliers from which to choose. Evans and Wurster [19] claimed that the low infrastructure and transaction costs of Internet-based systems allow organisations to exploit the increased opportunities for complex information exchange with multiple partners, but also recognised the value to be gained through closer relationships between trading partners ('affiliation'). Amit and Zott [20] likewise discussed the importance of close relationships ('lock-in') between trading partners as a key source of advantage to both buyer and seller, whilst Barratt and Rosdahl [21] claimed that ease of search and transparency acts as an advantage to the buyer but may be a disadvantage for the seller.

4. E-Service – The Impact of E-Procurement

The procurement function of public and private sector organisations typically operates at the interface between the organisation's operational processes and the external supplier marketplace. The function's role is clearly a dichotomous one – it acts as both a customer and a supplier. Many elements of the procurement process are analogous to a typical marketing process: including - identification of (internal customer's) needs, translation of those needs into specification, management of the delivery of goods and services to the internal customer and evaluation of the internal customers' satisfaction. The other elements of the process involve communication with suppliers – requests for tenders, price negotiation, ordering receipt and invoicing. Electronic procurement systems mirror the procurement process through the provision of two distinct, but connected, infrastructures - internal processing (via, for example, corporate intranet) and external communication with the supply base (via, for example, Internet-based platforms) [22]. Each of these provides opportunities to enhance customer service – internally and externally.

Three service-related phenomena are of interest to our internally focused paper:

1. **Customer perceptions:** Internal customers perceive the quality of service offered by the traditional purchasing function to be poor. Consequently the function is held in low regard [23]
2. **Process compliance:** The traditional procurement process for indirect supplies for internal customer is characterised by low internal compliance [22]
3. **Cost reduction:** Cost of procurement is a key concern effected by trying to minimise transaction costs by limiting the number of suppliers [24] [25].

5. Method

In this paper we report on the findings from our ongoing research into the nature and impact of electronic procurement (e-procurement) systems on internal customer service. This research programme has been concerned with building knowledge in e-procurement and has so far consisted of a series of interviews, cases and surveys conducted over the last two years with adopters and users of e-procurement systems. Ninety-seven organisations in total have been studied, including public sector bodies and a range of private sector organisations. All have participated in an extensive telephone survey, many have participated in focus group workshops and 16 have contributed to the development of more detailed case analyses.

In analysing internal e-service relationships we employed service quality criteria identified by Johnston [26] as the codes for labelling and presenting our data. These criteria are:

Attentiveness	Communication
Responsiveness	Competence
Care	Functionality
Availability	Commitment
Reliability	Access
Integrity	Flexibility
Friendliness	Security
Courtesy	

6. Findings

In assessing the impact of e-procurement on internal customer satisfaction we investigated the impact of on-line requisitioning and ordering using on-line catalogues and procurement cards. We also examined the implications of the financial modules of e-procurement on improved budgetary control and management reporting (see table 1).

In this respect we found that the use of an accessible (i.e. available at the desktop) and centrally specified service process produced clear *operational* improvement in terms of process performance such as: speed of processing (measured from requisition to order acknowledgement); system reliability (measured in terms

Table 1: Improvements from e-service

<i>Criteria</i>	<i>Characteristics</i>	<i>Significance</i>
On-Line Responsiveness, Availability, Reliability, Flexibility, Functionality, Access	<i>(Decouples user-provider interactions)</i> Mean time between failure of system key requirement (infrastructure reliability). 300% increase in speed of response from request to order (process time) Increased range of goods and services available on-line Reconciliation of expense to budget (integration between systems) Price savings (better sourcing)	<ul style="list-style-type: none"> • Process design and reliability a critical element of the delivery of e-service. • MTBF a vital area – this was found to vary between cases according to network reliability and 24/7 support. • Speed of response is seen as key order winner – increasing compliance and thus reduces off-contract buying.
Helpline Friendliness, Care, Courtesy, Flexibility, Attentiveness, Access	<i>(High contact)</i> Service interaction a key factor in satisfaction. Speed of resolution to queries and problems seen as important element of effective support. Customisation of support to deal with range of user knowledge and variety of system queries.	<ul style="list-style-type: none"> • Helpline staff capability, particularly the use of technically expert frontline help staff a significant contribution. • Call-centre management a critical element of the delivery of e-service.
Expectations and Perceptions Communication, Competence, Commitment	<i>(Explicit service process design)</i> Behavioural shift (changing practices) Cultural shift (changing perception) Technological focus –rather than business process change. Control – e-procurement allows ‘invisible control’	<ul style="list-style-type: none"> • Managing internal service relationships a key factor for effective e-procurement. • Technology focus can improve compliance for technically capable staff, but acts as a barrier if not.

of mean time between failure); greater range flexibility (larger catalogues). Additionally, users ability to improve budgetary information through on-line reconciliation and allocation of expenditure was seen as a significant benefit to their ability to control their own budgets whilst also reducing the burden on the Finance department. Finally, price improvements through consolidation of centralised purchases delivered increased budgetary efficiency – although in a number of cases this actually proved to be a disincentive! A fundamental concern here was that many managers are measured and evaluated according to the size of their budget – any significant reduction in purchase price leads to a reduction in the size of their budget. This was viewed as a real barrier to some of the fundamental changes needed to ensure compliance and buy-in with the systems.

Since, in many cases, user help was provided by a range of methods (including on-line, telephone and face-to-face) we have identified the characteristics and consequences of generic helpline support for the development and maintenance of internal service. The speed of resolution of queries was found to be a critical issue during e-procurement implementation and has a positive relationship to the extent of compliance by users. As the level of compliance is a primary performance measure of effective implementation, helpline design and delivery is critical to achieving high levels of compliance

and the consequent improved control over the procurement process. One of the most direct influences on speed of resolution was the use of expert frontline help staff. By deploying highly trained staff as the first point of contact a far larger proportion of queries are resolved through a single call (as there is less need for referral) than where junior staff were used as the initial contact point.

The third area of interest related to what was broadly described by respondents as ‘cultural shift’. An explicit focus on internal customer service, through mechanisms such as newsletters, intranet web sites and other internal marketing as well as cross departmental briefings and presentations, all highlight the value and contribution of effective service communication. In a number of our respondents the communication had concentrated almost exclusively on the technical characteristics of the systems and on user training. Almost paradoxically the response from such users was strong only where they were already technically competent (or ‘computer literate’). The perception in such organisations was that unless the training was well designed and part of a customer-focused service it acted as a disincentive to the user.

7. Conclusions and Implications for Internal E-Services

This paper has provided some evidence that there is a role for e-service, in particular e-procurement in helping improve internal customer service and reduce costs.

1. **Customer perceptions:** The application of e-service to internal purchasing and procurement improved customers perceptions of service - service was faster, easier with speedier problem resolution and control of budgets
2. **Process compliance:** The reliability of the process improved through reductions in MTBF together with high levels of compliance and control using help-line support.
3. **Cost reduction:** e-service applied to procurement enabled a restructuring of overall costs through the consolidation of centralised purchasing without the need to restrict the supplier base.

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