LIBRARY DECISION MAKING INFORMED BY CUSTOMER VALUES

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Abbreviations

AHP	Analytical Hierarchy Process
AV	Audio Visual
CAUL	Council of Australian University Librarians
CVD	Customer Value Discovery
DigiQUAL™	Electronic library quality instrument trademarked by the Association of Research Libraries
EBL	Evidence Based Librarianship
ESQi	Enterprise Service Quality instrument
HEFCE	Higher Education Funding Council of England
ISO	International Standards Organisation
IATUL	Association of Technical University Libraries
IT	Information Technology
LibQUAL+™	Library quality instrument trademarked by the Association of Research Libraries
LLR	Libraries and Learning Resources (Nottingham Trent University)
LR	Learning Resources (Deakin University)
NSS	National Student Survey
PAPE	Priority and Performance Evaluation
PCs	Personal Computers
NTU	Nottingham Trent University
SCONUL	Society of College, National and University Libraries
SERVQUAL	Quality instrument developed for use in service industries
TLSU	Teaching and Learning Support Unit (Deakin University)
UK	United Kingdom

Declaration

This thesis is submitted under Section 14C of the Nottingham Trent University Academic Standards and Quality Handbook - Regulations for the award of PhD by published work. It contains no material which has been accepted for the award of any other degree or diploma in any university or other institution. To the best of the candidate's knowledge, the thesis contains no material previously published or written by another person, except where due reference is made in the text of the thesis, or disclosed in the Statements relating to the multi-authored paper (see the Appendix 3).

Susan McKnight

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Finally, I thank my family. My father, the late Dr Tom McKnight was my academic hero and he would be so proud of his daughter. My mother made sure I believed I could do anything I set my mind to and has always encouraged me. My husband, Barry, has endured many a late night and no weekends as I wrote. He is a champion. My son put up with me for so many years while I juggled work, professional life, writing and motherhood. I thank you, David, from the bottom of my heart.

Abstract:

"Customer value" is a much used and, in a number of cases, a misunderstood term, with emphasis placed on a *priori* categories of what provides value for the customer, rather than an effort to understand value from a customer perspective .The research presented in this thesis spans more than ten years in two academic library services, (one in Australia and the other in the United Kingdom), using a methodology that does not use pre-determined value dimensions but, rather, dimensions identified by the customers themselves. This action research was carried out with different customer segments in the university libraries to identify customer values and irritations. By longitudinal tracking of student satisfaction in the UK university, changes in customer satisfaction were noted and related to interventions agreed by library management based on the research data gathered.

The thesis answers four specific research questions. By focussing on customer-defined dimensions of "value" and the concept of "customer irritation", through use of the Customer Value Discovery methodology, this research has been able to identify a set of core academic library customer values that traditional library benchmarking instruments have not previously highlighted. The attendant results of the application of the methodology to discern these values, and their use to inform subsequent change management processes, show that customer satisfaction is improved if changes are made to services and resources to both deliver customer-defined values *and* reduce customer-defined irritations. Further, they show that library staff assumptions regarding customer expectations and customer perceptions of service are not always accurate. Therefore, management should seek input from customers and base decisions regarding service changes and improvements to meet customer expectations on customer-derived evidence. At the same time, the active engagement of library staff in the Customer Value Discovery process, their engagement in modelling potential interventions to add value and reduce irritation, and then in the decision-making and implementation of agreed actions, encourages greater staff "buy-in" to the change management process, as the changes are customer-led, and staff driven, rather than being management imposed. The research supported the awarding of the UK Cabinet Office's Customer Service Excellence accreditation, attesting to the usefulness of the methodology to ensure customer-focussed services.

Taken together, these findings fill a number of gaps in the professional literature, and make a series of contributions to the extant knowledge base, by providing details of the Customer Value Discovery methodology and its usefulness in an academic library context; by presenting the application of a methodology that enables easy and precise identification of value dimensions from the perspective of the customer; and by providing practitioners with case studies of actions that improved customer satisfaction of the library services. As such, the research constitutes a significant contribution, not only to evidence-based library and information practice, informing library management decision-making, but also to the wider field of customer service management.

1.0   Introduction

In 1994, Hébert said:

> *Obviously, adding value, service quality, and customer satisfaction are new and pressing concepts for librarians … intention is to concentrate in 'how' libraries can assess and improve customer satisfaction (Hébert, 1994. p.20).*

He suggested that adding *value* was one of the challenges faced by librarians in trying to improve customer satisfaction. However, since his article on a single aspect of library service (interlibrary loans), there is scant evidence of research on actually defining *value* from the viewpoint of the library customer. This thesis remedies this by providing a methodology for defining value from the perspective of customers, and details specific customer values for students and academic staff at two university libraries.

These customer values were then used by library service staff to agree a set of interventions that would reduce customer irritation and add value to the customer experience. Longitudinal studies of student satisfaction with library services at the universities that are the subject of the research were used to ascertain whether the interventions put in place as a result of the Customer Value Discovery process improved customer perceptions of satisfaction with library services.

Hernon & Altman highlight the importance of managerial responsibility in managing academic library services where "librarians are trying to cope with fast-paced technological change, shrinking budgets, massive reorganisation, downsizing, and depressing predictions about the future of libraries" (Hernon & Altman,1998). Although this statement is now over ten years old, these sentiments still apply, but with one important additional challenge. This challenge refers to understanding the changing expectations of customers and changing services to respond to these changes. Leaders and managers must develop frameworks that can help guide service developments into the future, and the *published work* in this *thesis* provide case studies and reflections on practice and outcomes that can help.

This *thesis* by *published work* represents research and publications from 1999 to 2009, so far. The publications were motivated by professional challenges experienced in two academic libraries, which resulted in researching, analysing, and implementing actions following on from the research. It has also involved the dissemination of experiences and learning outcomes as a result of the discovery, integration and application of the research data.

This thesis explores the concepts of customer value and customer satisfaction from the perspective of academic library and information service customers, building on the theoretical frameworks evident in the literature. Customer value and customer satisfaction will be shown to be separate but related concepts.

The most common tools used in academic libraries to gauge perceptions of service quality (and value) and customer satisfaction are compared to a methodology, Customer Value Discovery, that is normally used in the commercial sector. This methodology has been used to define customer values in the two academic libraries investigated.

Finally, the thesis and the publications reinforce the need for managerial responsibility to implement change strategies, acting upon the data analysis from the customer value and customer satisfaction research.

The research questions addressed in the thesis are:

1. Can a set of core academic library customer values be defined and, if so, what are they?

2. What is the impact on customer satisfaction of changes made to services and resources to reduce irritation and add value, in response to the results of Customer Value Discovery research?

3. How does the Customer Value Discovery methodology compare to other tools used in academic library services to ascertain service quality and customer satisfaction?

4. Do the Customer Value Discovery research data aid management decision-making over and above customer satisfaction survey results, and if so, how?

The original intentions of the publications were to reflect on the research and analysis, to share experiences and to initiate discussion and comment. In addition to the journal articles, book chapters and conference papers included as the *published work*, the research led to collaboration regarding the development of the Customer Value Discovery process with Enzyme International Australia, the company that owns the methodology.

This linking chapter serves to provide the theoretical and broader professional framework that underpins the corpus of the *published work*, which is not always evidenced in the separate papers. While each paper can stand alone, there are strong links between the papers that are demonstrated in Section 4 of this linking chapter.

Together these papers represent a unique contribution to the knowledge base on customer values, customer satisfaction and management responsibilities for innovation and change viewed through the lens provided by the context of academic library services. The combined elements of the thesis (linking chapter and *published work*) bring together a collection of publications that benefit two communities: the research community (by providing details of evidence-based practice and placing details of the Customer Value Discovery methodology into the public domain) and academic library practitioners (providing details on outcomes and practical advice from experiences to guide decision-making).

2.0   Structure and Style of Submission

The thesis comprises three distinct sections: a linking chapter; the original publications that constitute the *published work*; and a number of appendices that provide evidence and declarations as supporting information.

The linking chapter is divided into nine sections. In addition to the introduction and this section, they refer to:

- The *research framework* and *methodologies* that are utilised in the publications.

- The *Research Context*, which provides the theoretical grounding of the publications and associated research, by defining the key elements that are explored in the publications:

  - customer value;
  - customer satisfaction;
  - tools and methodologies for gauging customer perceptions; and
  - management responsibility for implementing change.

  The broader professional literature is explored to provide a framework for the discussion of these elements in the context of the academic library and information service sector. In addition, the library and information science literature is examined as it relates to the specific themes in the thesis. Findings are drawn from the literature review and the publications related to these four elements.

- The *chronological development of the publications* that make up the thesis, providing evidence of the systematic development of the research and the maturing of the reflections. For each paper there is: a description of the unique contributions to the body of knowledge; the research methodology that was used in the research; and the research outcomes

and conclusions. For completeness, conclusions from the publications may be repeated here as well as in the section on Research Context.

- Evidence of the *impact of the research* upon the library and information sector is presented, identifying where the publications have been cited, and providing information on additional publications, presentations and guest lectures that have been informed by the research and publications.

- A summary of *key findings* regarding the research aims are detailed separately.

- *Future research opportunities* are provided that have been identified from the development of this thesis.

- Finally, *conclusions* are offered.

Throughout, *thesis* is used to describe the linking chapter, the eight publications that comprise the *published work*, and the appendices. References to the *individual* publications are cited as appropriate and are also discussed in chronological order in Section 5. The term *literature*, where used, refers to other publications that have been drawn upon in the context of the *thesis*.

The eight publications that constitute the *published work* have been reformatted from the original published form to provide a coherent style throughout the thesis. Fonts and headings have been standardised where possible and errors at the time of publication may still remain. References appear at the end of each paper, as in the original; however, a comprehensive bibliography has been included at the end of the thesis to include the

publications cited in the publications as well as those cited in the linking chapter.

The referenced URLs were correct at the time of access and publication of the original papers. In some cases the referenced works may no longer be available online.

Specific references in the linking chapter that refer to the publications provide the page reference from the original publication.

3.0   Research Framework and Methodologies

This body of *published work* sits within Boyer's framework of scholarship: discovery, integration, interpretation and teaching/transmission (Boyer, 1990), and represents what Revans refers to as action research (Revens, 1983). They reflect the applied nature of the research, dealing with practical research questions in two academic libraries, the analysis of the data within a number of discipline areas, and the actions identified and outcomes of the actions that arose from the research data. Following is a detailed representation of the application of a research action approach within Boyer's framework (Boyer, 1990).

Boyer recognised the importance of published, peer reviewed research, but also the imperative to reach practitioners as well as researchers (Boyer, 1990). The publications in this *thesis* are examples of dissemination aimed at both researchers and practitioners, including those attending conferences (a common vehicle in the library and information science profession to gain knowledge). The varied style and intended audiences of the publications demonstrate that "not just outcomes, but the process … give meaning to the [research] effort" (Boyer, 1990. p.17). The conference papers, in particular, represent case studies of the research, drawing upon the applied nature of the research and the details of the implementation of actions arising from the research, thus providing insight into the process of the research.

Relating the research described in this thesis to the Boyer framework, the publications are the outcome of a scholarly effort, as outlined in Table 1 on page 9, where first '*discovery*' involves the process of Customer Value Discovery (described in detail in Section 4.3.5) as used with different customer segments in two universities, Deakin University in Australia, and Nottingham Trent University in the United Kingdom. It is meta-research (or meta- *discovery*), not just exploring the application of Customer Value Discovery but research about its application. It is "discovery" (Boyer, 1990) about "discovery" (Austin, 2007).

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The second element of Boyer's framework of scholarship is '*integration/synthesis*'. This linking chapter demonstrates the inter-disciplinary connectedness between library and information science, social sciences, marketing and management in what Polayni refers to as overlapping [academic] neighbourhoods (Polayni, 1967).

The third dimension of Boyer's framework is '*application/interpretation*' of the research data, and this is captured in the eight publications. According to Boyer, this scholarship of application "must be tied directly to one's special field of knowledge and relate to, and flow directly out of, the professional activity", which in the case of this thesis is library leadership and management (Boyer, 1990, p.22). The Interactive Value Modelling stage (detailed in Section 4.3.5.5) of the Customer Value Discovery methodology represents the beginning of the 'application' stage, followed by the staff identified actions that flow from the research data aimed at adding value and reducing irritation.

The fourth dimension in Boyer's framework of scholarship is '*teaching/transmission*'. The publications, and presentations and lectures related to the applied research, demonstrate the relationship of research and learning to real life situations to an audience of practitioners, researchers and students, thus fulfilling the 'teaching/transmission' dimension. A summary of Boyer's framework of scholarship, as applied to specific elements of the current Customer Value Discovery journey, as discussed in this thesis, is shown in Table 1 (Boyer, 1990).

Table 1: Boyer's Framework of Scholarship Applied to the Current Customer Value Discovery Journey (Boyer, 1990)

Boyer's Framework of Scholarship	Research/ Thesis Evidence
Discovery/(data collection, analysis, conclusions)	Customer Value Discovery conducted with: Students Academic staff Researchers Off-campus students University stakeholders
Integration/Synthesis	Pre-SERVQUAL SERVQUAL LibQUAL+ and Rodski Research Group Survey Customer Value Discovery
Application/Interpretation	Interactive Value Modelling process with Customer Value Discovery Service Improvements Organisational change Customer Service Excellence accreditation
Teaching/Transmission	Publications Keynote and other conference presentations Lectures to Research Methods Masters students Staff training

In this framework of scholarship, the linking chapter and body of *published work* constitute a robust demonstration of research that both applies and contributes to knowledge. The start of the research began with the process of commissioning of the first Customer Value Discovery workshop at Deakin University in 1999. The aim at that point was to receive direct customer feedback to inform planning and organisational change and development. This initial research spawned further research, as did the reflections on the outcomes of this first foray into "action research" (Revans, 1983). Over time, personal observations, reflected in publications and presentations, have matured. The linking chapter reflects on the process of research and the knowledge gained.

This thesis represents a triangulation of research methods as is common in social science research (Jick, 1979; Robson, 2002). Methodological triangulation is used, involving both quantitative and qualitative approaches. Data triangulation, utilising separate sets of data, collected at different times and from different samples, is used for comparative purposes. The thesis is informed primarily by an action research methodology, which is intended to have both action outcomes and research outcomes (Revans, 1983; Dick, 2000; Coghlan & Brannick, 2005; Reason & Bradbury, 2006).

A summary of the research methods is contained in Figure 1.

Figure 1: Summary of Thesis Research Methods
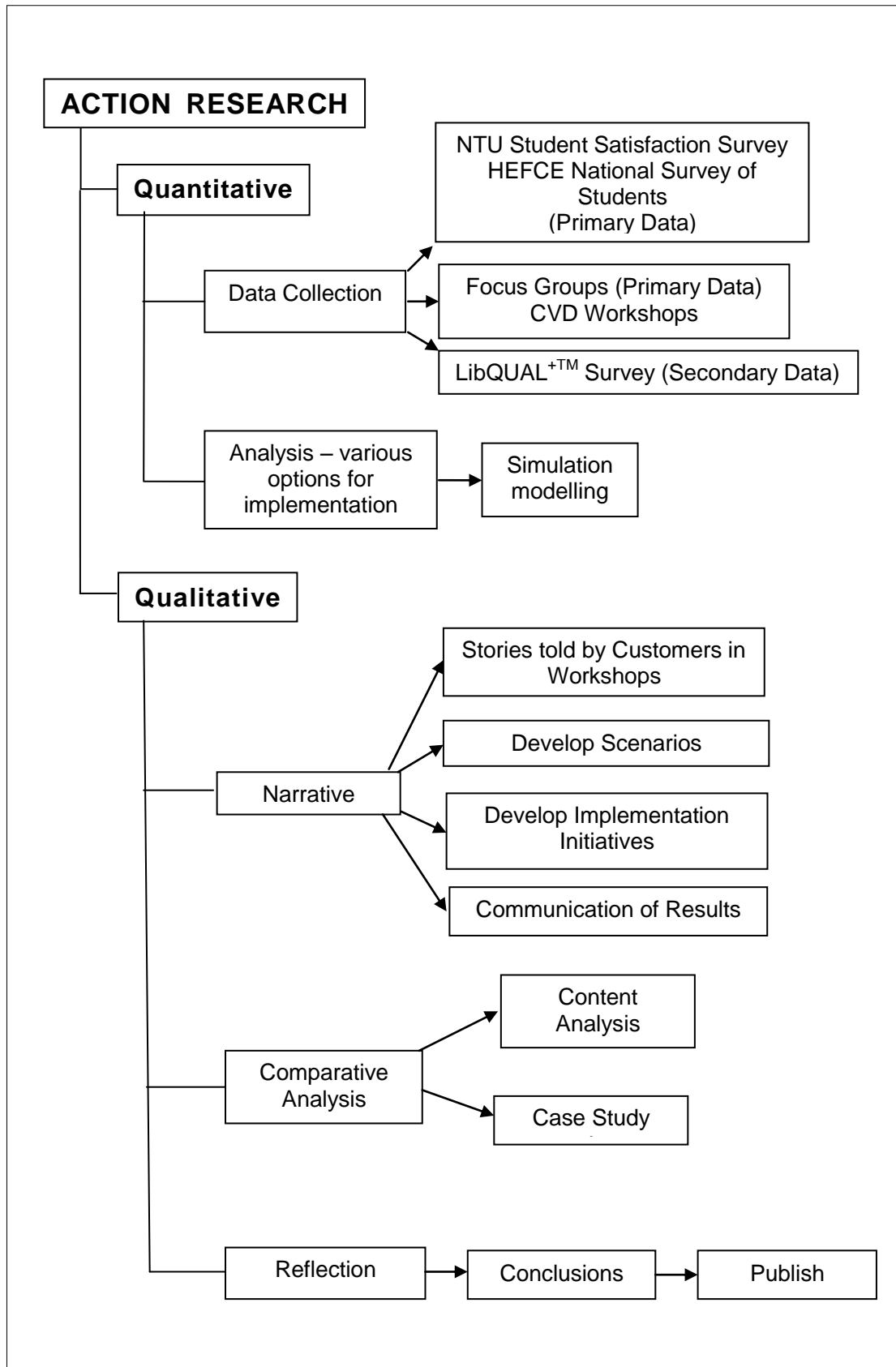
As shown in Figure 1, this thesis combines research, action, learning, and communication into a single publication aimed at filling gaps in the

professional knowledge base for library and information science related to library customer values, customer satisfaction and management responsibilities to deliver customer value.

Action Research, first coined by Kurt Lewin, is concerned with the integration of theory and practice (Smith, 2001). It requires progress upon treatment of a real problem or opportunity; managers and other staff define best approach and tackle challenges; and managers and staff learn from each other in a learning environment, or an environment that embraces a culture of continuous quality improvement.

According to Pickard, library and information researchers are recognising the value of action research in improving service provision, encouraging reflective practice and structuring and disseminating experience to the wider professional community (Pickard, 2007). Revan's Action Research characteristics (Revens, 1983), as defined by Sarantakos, suited the research aims and the environments in which the research was undertaken and is highlighted in Table 2 (Sarantakos, 2005).

Table 2: Characteristics of Action Research (from Sarantakos, 2005) **and the Characteristics of this Thesis**

Characteristics of Action Research	Thesis Elements / Characteristics of this Research
Applied	Delivering on academic library customer values; reducing irritants to increase satisfaction
Situational	Improving customer satisfaction in specific academic libraries
Topical	Addressing professional management and service challenges
Collaborative	Involved customers, library staff, the author
Participatory	The author led the implementation of actions
Political	It focuses on the capacity of staff to change services and the way services are delivered to enhance customer satisfaction
Emancipatory	Customers and library staff are actively engaged
Self Evaluation	The Customer Value Discovery model and Interactive Value Modelling has evolved as a result of the research

While the entirety of this thesis represents Action Research (as indicated in Figure 1 on page 11), the Customer Value Discovery methodology (which is discussed in detail in Section 4.3.5) is also an example of Action Research: it addresses familiar problems in familiar settings; it requires managerial and staff action and involves library staff, who participate in the workshops, in observing and offering advice (through the analysis, consolidation, and interactive value modelling processes) on familiar or unfamiliar tasks in familiar or unfamiliar settings (Revans, 1983; Coghlan & Brannick, 2005).

To illustrate the link between the Customer Value Discovery methodology and Action Research, the following diagrams illustrate the steps involved according to Austin, for the former, and Cohan & Brannick for the later (Austin, 2007; Coghlan & Brannick, 2005). Figure 2 outlines the steps involved in the Customer Value Discovery methodology.

Figure 2: Customer Value Discovery Research Framework
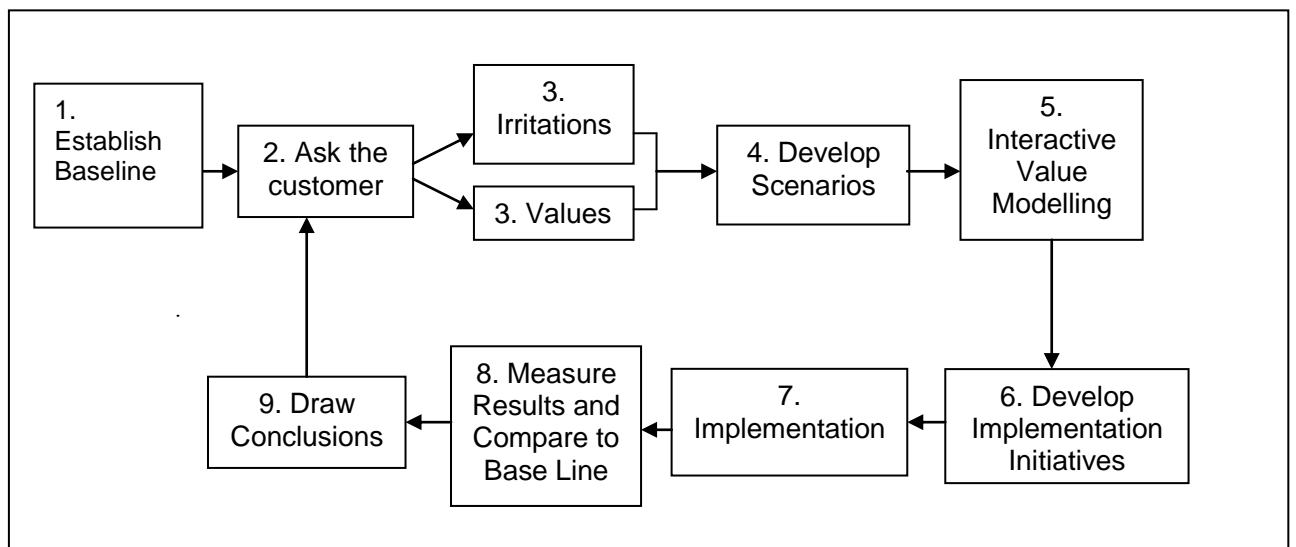
Figure 3 (page 14) represents Action Research with the Customer Value Discovery framework mapped to the particular stages described by Coghlan and Brannick (Coghlan & Brannick, 2005).

Figure 3: Action Research Cycle Framework linked to Steps in Figure 2
(adapted from Coghlan & Brannick, 2005)
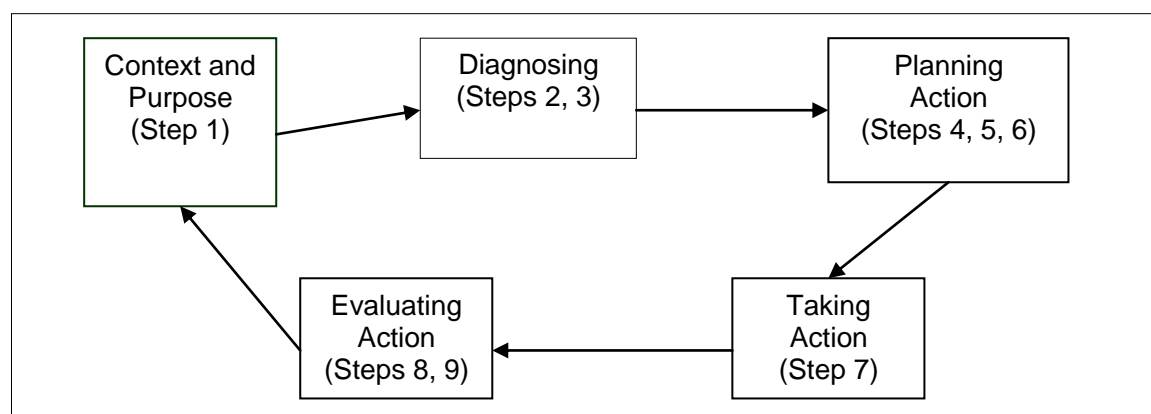
The use of narrative research methods (Czarniawska, 2004; Elliott, 2005) is also demonstrated in the research processes. Narrative Research (Czarniawska, 2004) is mapped below in relation to Customer Value Discovery and Interactive Value Modelling (detailed in Section 4.3.5), and the actions taken as a result of the data gathering as shown in Table 3.

Table 3: Characteristics of Narrative Research Methods (from Czarniawska, 2004) **and Thesis Characteristics**

Characteristics of Narrative Research Methods	Thesis Characteristics
Watching how the stories are being made	Library staff observers in the Customer Value Discovery workshops
Collecting the stories	Customer communications in workshop recorded
Provoking story telling	Facilitated workshops; Developing scenarios with library staff
Interpreting the stories	Analysis of the hierarchies of Values and Irritants; Gap analyses
Analysing the stories	Analysis of individual comments
Deconstructing the stories	Building the model; Interactive Value Modelling
Putting together own story	Developing implementation initiatives
Setting it against/together with other stories	Measuring satisfaction and comparing with the baseline data

The publications (McKnight, 2000; 2002; 2006b; 2006c; 2007b; and McKnight & Berrington, 2008) involve the concept of narrative based librarianship as described by Brophy (Brophy, 2004; 2007). This is an extension of the

concept of Narrative Research (Czarniawska, 2004; Elliott, 2005) and specifically applied in the library and information environment. The methodology of Customer Value Discovery requires the active participation of library staff, which is a unique feature of the methodology when compared to commonly used tools for measuring service quality and satisfaction in a library environment. This staff involvement leads to the *telling of stories* within the library service; the linking of actions to the defined values and irritants of customers; the cognitive positioning required for a change of culture that places the customer at the centre of the library service and the acknowledgement that customer experiences and perceptions are their *reality* (McKnight, 2006b; 2007a). Brophy claims that "when the goal of investigation is either increased understanding or purposive action, stories have always been powerful" (Brophy, 2006b, p.30). The narrative is interested in meaning, the significance of the findings, rather than the hard data (Brophy, 2007). It is particularly important when differentiating the impacts of this research against those of conventional customer satisfaction survey results. Because library staff participate in the Customer Value Discovery processes, they have a personal and emotional involvement with the outcomes; they speak about their experience of listening to customers; of the insights they gained through the process; about the impact the experience has had on them professionally and on the service. ((McKnight & Berrington, 2008; and Neal *et al,* 2009) are examples of this narrative being told by staff who were involved in the process.) This is to be compared and contrasted to the experience of receiving the results of an internal university student satisfaction survey or the results of a LibQUAL+™ survey. Although the customers can provide comments, the narrative is lost to all but those few staff who analyse the results of the survey; and so too is lost the important factor in successfully engaging library staff in cultural change as a result of analysing customer satisfaction results. These issues will be discussed in more detail in Section 4.3.

Singh identifies the importance of marketing and customer focused culture amongst library staff for delivering service quality (Singh, 2008; 2009). Library staff engagement in the Customer Value Discovery process and the follow-up

actions, and the creation of the narratives that accompany the research outcomes, helps foster this vital organisational culture.

In addition to categorising the research as action research with narrative research characteristics, this thesis also represents Evidence Based Librarianship as described by Booth: "Evidence-based librarianship (EBL) is an approach to information science that promotes the collection, interpretation and integration of valid, important and applicable user-reported, librarian observed, and research-orientated evidence. The best available evidence, moderated by user needs and preferences, is applied to improve the quality of professional judgments" (Booth, 2003, p.6). It also conforms with the definition of Crumley and Koufogiannakis: "Evidence-Based Librarianship (EBL) is a means to improve the profession of librarianship by asking questions as well as finding, critically appraising and incorporating research evidence from library science (and other disciplines) into daily practice. It involves encouraging librarians to conduct high quality qualitative and quantitative research" (Crumley and Koufogiannakis, 2002).

The research described in the thesis maps closely to the EBL definition in that: the Customer Value Discovery workshops involve user-reported data and are librarian observed; the research and subsequent action requires active participation of library staff. Library staff participate in the Customer Value Discovery workshops and vote as they *think* the customer will vote, thus providing a gap analysis that challenges professional assumptions of what customers do value. In the Interactive Value Modelling, library staff are again actively involved: suggesting interventions to add value and reduce irritation; agreeing priority areas for action; and for leading the changes as a result of the customer value discovery.

According to Booth and Eldredge, the library profession does not have a strong background in evidence based research (Booth, 2003; Eldredge, 2002; 2004); however, there is a growing body of evidence of its use in the literature (Booth, 2003; Gorman & Clayton, 2004; Pickard, 2007). The publications in this thesis add to this body of literature.

4.0   The Research Context

This linking chapter presents the contributions of the publications in the context of quality management, which enables the exploration of the research questions posed in this thesis:

> 1. Can a set of core academic library customer values be defined and, if so, what are they?
>
> 2. What is the impact on customer satisfaction of changes made to services and resources to reduce irritation and add value, in response to the results of Customer Value Discovery research?
>
> 3. How does the Customer Value Discovery methodology compare to other tools used in academic library services to ascertain service quality and customer satisfaction?
>
> 4. Do the Customer Value Discovery research data aid management decision-making over and above customer satisfaction survey results, and if so, how?

The International Standards Association (ISO) describes quality management as what an organisation does to fulfill:

- the customer's quality requirements, and
- applicable regulatory requirements, while aiming to
- enhance customer satisfaction, and
- achieve continual improvement of its performance in pursuit of these objectives (ISO, 2009).

Figure 4 provides a diagrammatic representation of the quality management process. The two external components (Customer Values and Customer Satisfaction) are explored in Section 4.1 and 4.2 respectively. Tools and methodologies that are used to measure customer values and customer satisfaction, especially in the library and information context, are described in Section 4.3. Section 4.4 explores management responsibility for implementing change. Resource management and service/product are subsumed under the overarching 'management responsibilities'.

Figure 4: Continual Improvement of the Quality Management System
(adapted from Hill, Self, Roche, 2002, p.12)
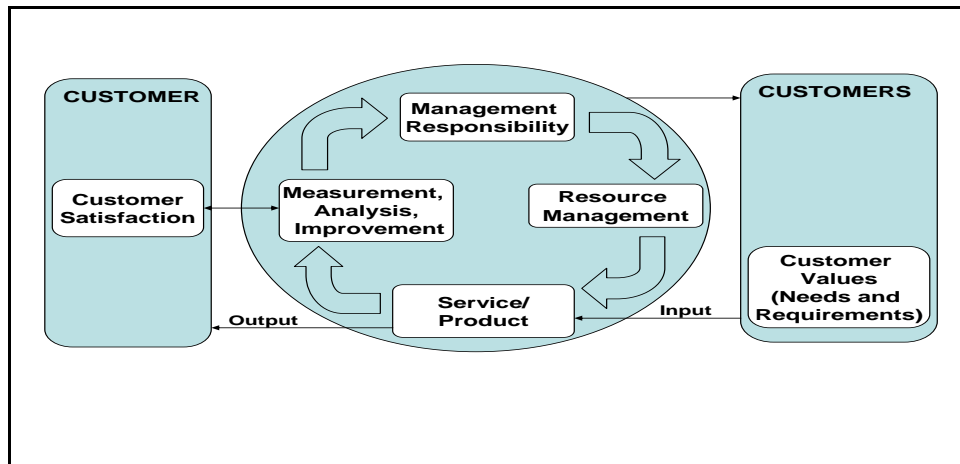
Throughout the literature and, indeed, this thesis, there are references to customer *value* and customer *values*. As explained in Section 4.1, when defined by customers, there can be multiple values or multiple dimensions of a value. This thesis incorporates the notion of what the customer *values* which provides a philosophical determination of customer value rather than a pre-defined definition of customer value.

Woodruff & Gardial describe the 'Customer Value Determination Process' that also reflects the nature of the action research described in the publications (Woodruff & Gardial, 1996). There are similarities between their approach (as represented in Figure 5, page 20) and that of Hill *et al* represented in Figure 4 above, in that both require the identification of value dimensions, customer satisfaction, the notion of measurement and analysis, and management initiated action as a result of the research (Hill *et al*, 2002).

Figure 11, on page 61, outlines the Customer Value Discovery process, which was developed separately according to Austin, but at about the same time as the Woodruff & Gardial process (Austin, 2007; Woodruff & Gardial, 1996). As just noted, the processes are similar in that both require: identification of the customer value dimensions and a prioritisation of these; a determination of customer satisfaction (Woodruff & Gardial, 1996) and a determination of perceptions of service performance (Austin, 2007); and an exploration of

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options to improve perceptions of customer value. The diagram in Figure 11 does not explicitly indicate the identification of irritants as well as values, and this would represent a variation between the processes. The other variations in the process diagrams are at the beginning and end stages of the process: Woodruff & Gardial place "Select target customers" and "Develop and implement action plans" as dotted boxes in their process; in the Customer Value Discovery process both are included in the overall methodology (Woodruff & Gardial, 1996).

Figure 5: The Customer Value Determination Process (from Woodruff & Gardial, 1996, p.14)
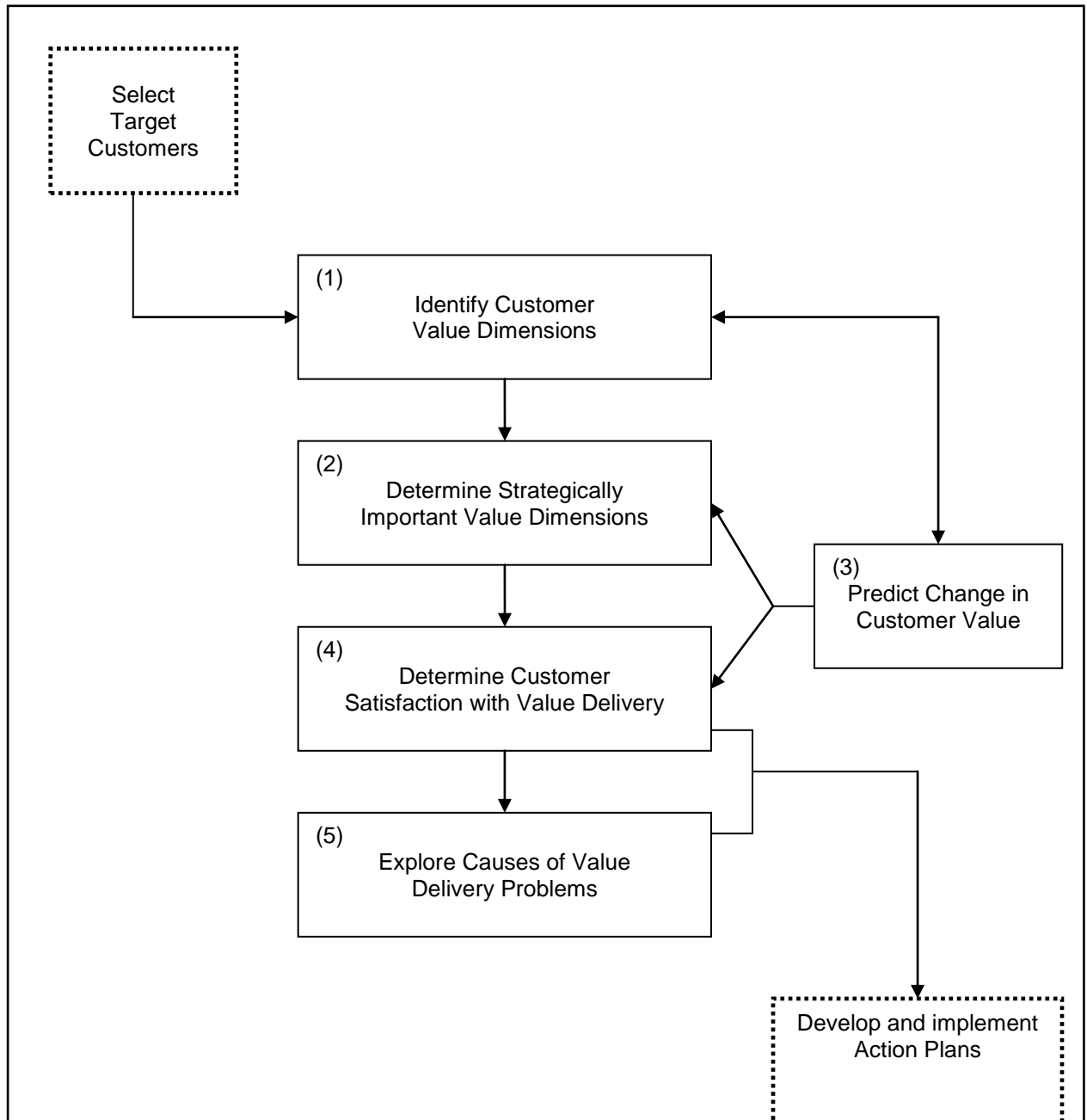
Within in the context of this linking chapter, Steps 1, 2 and 3 in Figure 5 relate to understanding what customers value and this is discussed in Section 4.1; Step 4 relates to ascertaining customer satisfaction which is explored in Section 4.2 and Step 5 relates to management's responsibility in analyzing the customer value and customer satisfaction data, which is explored in Section 4.4.

Finally, within the overall context of action research, the publications in this thesis are set in the context of two higher education library and information services, one in Australia (Deakin University Library/Learning Services) and the other in the United Kingdom (Nottingham Trent University Libraries and Learning Resources). Later discussions point to inferences and conclusions drawn from the research that can be applied across the academic library sector in general. Similarly, although the focus of a number of the publications relates to particular customer segments in these two library and information services - academic staff and undergraduate students – the principles and concepts discussed can be applied to library customers in general.

4.1 Customer Value

Khalifa suggests that there are three categories of value: shareholder value; stakeholder value; and customer value. However, he argues that customer value is the source of all other values (Khalifa, 2004). However, there is no single, authoritative definition of customer value in the literature (Sweeney & Soutar, 2001; Woodall, 2003; Gounaris *et al*, 2007).

Zeithaml defines perceived value as a "consumer's overall assessment of the utility of a product (or service) based on perceptions of what is received and what is given" (Zeithaml, 1988, p.14). This definition suggests that the customer has had experience of the service or product. Woodruff & Gardial and Woodruff explore the concept of customer value as being something defined by customers that describe their desires for a product or service, which can be articulated regardless of whether the customer has had experience of the product or service (Woodruff & Gardial, 1996; Woodruff, 1997).

Woodruff & Gardial define customer value as having the following dimensions:
- *What the customer desires from a product or service*
- *Exhibits a future orientation; is independent of the timing of the product use/consumption*
- *Exists independent of any particular product/service offering or supplier organisation*
- *Provides direction for the organisation; what they should do to create value* (Woodruff & Gardial, 1996, p.98).

Later, Woodruff described customer value as:
> "*a customer's perceived preference for and evaluation of those product attributes, attributive performances, and consequences arising from use that facilitate (or block) achieving the customer's goals and purposes in a situation*" (Woodruff, 1997, p.142).

When considering customer value from the individual's perspective, it is acknowledged that value is determined by customers' perceptions, not by the service provider (Simpson *et al.* 2001), and Khalifa claims this means that customer value is difficult to define because of subjectivity, ambiguity and the

dynamic nature of customer perceptions (Khalifa, 2004). Rust & Oliver emphasise the subjectivity of these concepts that they describe as being "in the customer's mind" (Rust & Oliver, 1994b, p.3). Woodall & McKnight also point to the difficulties of defining and measuring customer value identified by Khalifa and mentioned above (Woodall & McKnight, 2008).

The tools or methodologies used to determine customer value can start from pre-determined dimensions of customer value regarding the interaction that the customer has with a service or product, which Woodruff and Gardial describe as "attributes, consequences and values" (Woodruff & Gardial, 1996, p.102). In the context of academic libraries, for instance, the LibQUAL+™ instrument has three pre-determined dimensions: Affect of Service; Information Control and Library as Place as factors that impinge on customers' perceptions of an effective library service (Cook & Heath, 2001).

In this thesis, the emphasis is on defining customer value from the *customers'* perspective, using their own experiences and expectations to describe the attributes of the service that they believe give them value. Albrecht asks "What is customer value? … It's the customer's perception of specific need fulfillment. It's the end condition that the customer considers worthy of his or her approval…This can cover everything from a tangible piece of merchandise to a pure experience" (Albrecht, 1994a, p.14). He goes on to emphasise that the way to discover what customers want is to listen directly to them, to let them talk about their worlds, their problems, their needs, and their interests. "The more innocent and open minded you are about hearing what they say, the greater the chance you'll discover one or more elements of their experience that present a special opportunity (Albrecht, 1994a, p.14). Rather than pre-defined dimensions of value, customers are invited to determine their own dimensions of value.

The publications (McKnight, 2006b; 2007; 2008; 2009; McKnight & Berrington, 2008) highlight the importance of allowing customers to make their own definitions of what is important to them (their values) rather than having the customer respond to questions that have been developed by the organisation,

which reflect what the organisation thinks the customers will value. The issue of how to measure value is discussed in Section 4.3, which explores different tools and methodologies that can be used for qualifying what is meant by customer value.

Woodruff & Gardial explain that customer values can be articulated in a form of hierarchy of importance of attributes, again presenting the concept from the customer's perspective, which can aid management decision-making regarding actions that need to be taken to deliver value for the customer (Woodruff & Gardial, 1996). This link between customer values and management decision-making is central to this thesis.

An analysis of the literature on customer value suggests that it is often referred to as a single concept: there is *value*. For instance: customer value (Holbrook, 1994; Khalifa, 2004); consumer/customer perceived value (Sweeney & Soutar, 2001; Gounaris *et al*, 2007); value for the customer (Woodall, 2003); creating value (Day, 1990). However, a deeper analysis identifies that *value* has multiple dimensions as indicated above for different customers of an academic library service. Albrecht, Woodruff & Gardial, McKnight and McKnight & Berrington refer to multiple customer values or variations of a customer determined value (Albrecht, 1994a; 1994b; Woodruff & Gardial, 1996; McKnight, 2002; 2006b; 2006c; 2007b; 2008; 2009; McKnight & Berrington, 2008). These publications emphasise that when customers are asked to define value from their perspective, they nominate multiple characteristics, not a single construct.

Different definitions of customer value are characterised by the manner in which the value is expressed. From an organisational perspective, the expression of value may be centred on the value customers deliver to the organisation: "Customers are not alike. Some are high value: they are loyal and buy a lot. Some are low value: they are inconstant and don't buy very much" (Hughes & Wang, 2009). Also from an organisational perspective, customer value can be defined in economic terms as the revenue and costs streams that are likely to be generated in the life cycle of a customer (Slater &

Narver, 2000). Customer value has also been described as the difference between the benefits that a customer receives from the product or service and the effort and cost that the customer has to invest to get the product or service (Kotler, 1972; Day, 1990; Drucker, 1990). Sweeney & Soutar identify "the most common definition of value is the ratio or trade-off between quality and price" (Sweeney & Soutar, 2001, p.204). In service sectors, customer value can be expressed as a financial benefit to the organisation and the community it services, for example: "The British Library generates value around 4.4 times the level of its public funding" (Clarke, 2009).

Customer value has also been described in the context of customer benefit and sacrifice, which is a definition also used to describe customer satisfaction. Section 4.2 will explore this notion more fully. The notion of sacrifice is associated with the monetary and non-monetary 'price' associated with accessing a service, such as time, effort, usability (Heskett *et al* 1997; Cronin *et al*, 2000). The *sacrifice* component, as it relates to identifying customer values, is explored in the *published work* through the identification, from the customers' perspective, of factors that annoy or frustrate them regarding library services. Thus the concepts of hierarchies of customer values *and* customer irritations are explored and defined (McKnight, 2006b; 2007b; 2008; McKnight & Berrington, 2008).

Even though a product is successful, it does not follow that it will continue to attract and retain loyal customers in the future. The notion that needs and expectations will change over time requires an organisation to constantly seek insight into the evolving values of customers (Kano *et al*, 1984). History combined with technology developments provides examples of products and services that have lost favour with the changing needs and expectations of customers, for example the evolution of music playback systems from phonograms, through record players, cassette recorders, to today's digital video discs, portable digital devices such as the iPod and the Internet. McKnight, in this thesis, explores the impact of time on the expression of customer values as these relate to academic library and information services (McKnight, 2002; 2007a; 2009).

4.1.1 Discussion of 'Customer Value'

A common focus of the marketing literature on customer value has been on the *monetary* value for a good or service, such as defining customer value in the context of the transaction of price and payment for goods or services (Kotler, 1972; Day, 1990; Drucker, 1990). More recently, Hughes and Wang define customer value from the context of how much economic benefit is going to be delivered to an organisation by its customers (Hughes & Wang, 2009).

Cohen & Housten, Dick & Basu, Holbrook, Pura and Gounaris *et al* discuss customer value, brand loyalty and behavioural intentions in the context of informing strategies to attract and retain customers to a particular product or service (Cohen & Housten, 1972; Dick & Basu, 1994; Holbrook 1994; Pura, 2005) and Gounaris *et al*, 2007). While these concepts are widely accepted in the manufacturing and retail sectors, the notion of understanding customer value is gradually gaining acceptance in the university sector, especially following the introduction of 'top up' student fees in Australia from 1989 (Australia. Higher Education Funding Act, 1988) and in the UK from 2006 (UK. Higher Education Funding Act, 2004).

Articles referring to students as customers are becoming more common, and these explore customer expectations of value and quality, brand loyalty and behavioural intentions. For example: Hill explores managing service quality from the perspective of the student as a consumer (Hill, 1995); Soutar & McNeil define service quality in a tertiary institution from the perspective of student customers (Soutar & McNeil, 1996); East and Sherry describe expectations and perceptions of students as customers (East, 2001; Sherry *et al*, 2004); Darlaston-Jones explores student expectations of higher education (Darlaston-Jones *et al*, 2003); O'Neill discusses student perceptions of service quality (O'Neill, 2003); Asthana describes the issue of student rights and their demand for value (Asthana, 2006); Petruzzellis similarly explores service promises to students (Petruzzellis *et al*, 2006); and Prugsamatz

discuss student satisfaction and quality (Prugsamatz *et al*, 2006). This literature on students as customers represents a global perspective with articles from Australia (Soutar & McNeil, 1996; East, 2001), China and Hong Kong (Prugsamatz *et al,* 2006), Italy (Petruzzellis *et al*, 2006), New Zealand (Sherry *et al,* 2004) the United States of America (Darlaston-Jones *et al,* 2003; O'Neill, 2003) and the United Kingdom (Asthana, 2006; Hill, 1995). Two of these countries, Australia and the United Kingdom, are the focus of the publications in this thesis.

The majority of the articles mentioned above, in relation to universities, discuss service quality, customer choice and increased customer expectations of receiving *value for money*. The emphasis is on students' perceived value for money and price sensitivity. Thus the notion of economic value is emphasised. However, these articles do not include the library as part of the value equation, let alone the individual perceptions of services expected from a university library service, which is a gap in the literature addressed by this thesis. As will be discussed in Section 4.2, the importance of the library to university students is recognised through the inclusion of library services in national graduate student satisfaction surveys that are conducted in the United Kingdom.

The notion of creating value from libraries in general, from a financial return on investment perspective, is mentioned in a number of publications (Whitehall, 1995; Liddle, 1999; Warnaby & Finney, 2005; Kaufman & Watstein, 2008; Ladhari & Morales, 2008); Clarke, 2009; and American Library Association, n.d.). Public, state and national libraries, in particular, have endeavoured to identify a financial benefit or value to justify their existence to their stakeholders. There has been less emphasis on this aspect of financial value (as opposed to the importance of the service as a function of value) of university libraries, perhaps because there is less demand from such institutions to quantify their financial return on investment to government financers. The publications in this thesis do not venture into the definition of financial benefit or return on investment of academic library and information services, apart from one (McKnight, 2000), which explicitly mentions the

needs of stakeholders, and the relevant Library User Value Statement for Stakeholders has economic dimensions implied in the wording.

A further concept of value associated with university libraries is the academic or scholarly value, measured by contribution made by libraries to learning, teaching and research. The value is normally considered from an institutional viewpoint, rather than from the perspective of the library customer. Institutional support for eLearning; collections to support the curriculum; remote access to support expanding markets of part-time, remote and international students; quality assurance processes in support of institutional audits are all examples of academic library responses to delivering value to their parent institutions are examples of this type of value adding. However, Liddle, writing from a library service perspective, says there is "no consensus on a final definition or description of what best value is and how it may evolve" (Liddle, 1999, p.206). Liddle's emphasis is on the value of the library to the institution, rather than value to the individual library customer. These concepts are quite different from 'customer values' that reflect services and resources that library customers value from an individual's perspective, rather than as an economic value.

There are few references in the professional library and information science literature to 'library customer value' *per se* with the emphasis on what customers' say they think is important about library services. Wilson, in her review of Fidishun's (Fidishun, 2007) publication, identifies "services, programs and technology" as the factors that *female* public library customers *value* at the Chester County Library in Exton, Pennsylvania, USA (Wilson, 2009). Apart from this publication, and the publications in this thesis, no other references to 'library customer values' have been identified.

The Fidishun publication is unusual in that it defines the importance of library services in relation to a specific customer segment, in this case female library customers, rather than speaking about value from the perspective of the entire customer base or from the perspective of the library organization (Fidishun, 2007). The publications in this thesis explore the expression of

customer value from the perspective of different customer segments, which adds to the knowledge base on the importance of understanding different customer drivers.

The thesis describes a methodology (Customer Value Discovery) that enables easy and precise identification of customer values from the perspective of the customer. These customer values can then be used to provide a framework for service provision that caters for the changing expectations of customers and increases the perception of customer satisfaction, which will be discussed further in Section 4.2 and Section 4.4.

Organisations can make inaccurate assumptions about what is important from a customer's perspective. The importance of asking customers to define value from their perspective, as mentioned by Woodruff and Gardial and Khalifa, is underlined by the publications in this thesis (Woodruff & Gardial, 1996; Khalifa, 2004). While authors have highlighted the need to gain this insight, there is little evidence in the literature of the comparison of the differences when the organisation defines customer value and the definition provided by the customers themselves. This gap is addressed in relation to library customer values in two academic libraries by publications in this thesis (McKnight, 2006b; 2007b; 2009). The methodology described in this thesis to establish a definition of customer values requires active engagement of the organisation's staff. The library and information service staff are required to predict what they think the customer is going to say regarding which customer-identified services are most valued and current performance of existing services compared to the ideal service from the eyes of the customer. Staff assumptions can, therefore, be challenged by the results of the customer value discovery workshops.

The literature, normally associated with customer satisfaction, defines the concept of different categories of customer value. The Kano Model, for instance (see Section 4.3), distinguishes between 'threshold' or 'basic' attributes of a service, 'performance' attributes and 'exciters' or 'delighters' (Brophy, 2006b). The Customer Value Discovery methodology also describes

'basic' and 'delighter' attributes (McKnight, 2006b; 2007b; McKnight & Berrington, 2008). The publications in this thesis further explore the impact of time on delighter and basic customer values.

The publications in this thesis identify multiple customer values, and with different levels of importance attached to the various components of customer value, supporting Woodruff & Gardial's definition of a customer value dimensions expressed in a hierarchy (Woodruff & Gardial, 1996). As already indicated, the research also identifies multiple customer values according to the different customer segment investigated. An example of how Deakin University Library used the customer values for different customer segments to articulate a 'service charter' is provided in Table 4. A full description of these "Library User Value Statements", taken from McKnight (2000), appears in Table 12 on page 88.

Table 4: Student Library User Value Statements (From McKnight, 2000)

STUDENTS – to help you learn, we will strive to provide
Resources
-     enough copies of textbooks
-     access to high demand material
-     a range of electronic resources
Staff
-     who are well trained and knowledgeable
-     who offer friendly, helpful service
Easy Access
-     via a catalogue which is comprehensive and reliable
-     to materials on the shelves
-     which is convenient and equitable
Environment
-     which is comfortable and conducive to study
-     which has enough furniture and equipment

Marketing literature emphasises the importance of understanding customer segments, as each customer segment may have a different values or different ranking of the same values. For example: in the UK university, students rated more highly the importance of an 'Inspiring environment supporting diverse needs' than did academic staff in the same institution. While both segments

identified the importance of the physical library space, academic staff, who have access to well equipped offices and who rely a lot more on the digital library, rated it as 5th most important but students ranked it as the 2nd most important attribute of value (McKnight, 2008). Different customer segments can also express values that pertain to just that segment, for example, off-campus students identified *'delivery'* of physical library books as a value dimension, whereas on-campus students did not need a delivery service so were silent on that service as a value dimension. Similarly, off-campus students, who study via distance education, did not rate the physical library environment as a value factor (McKnight, 2000). This thesis explores the notion of multiple customer-defined values and also of the expression of these customer values as they relate to specific customer segments in an academic library and information service.

4.1.2 Key Findings from the Publications Related to 'Customer Value'

The publications demonstrate that it is possible to use a "commercially orientated" methodology, Customer Value Discovery, in the not-for-profit sector to define customer values from the perspective of library customers. The methodology overcomes concerns raised by Rust & Oliver, Woodall and Khalifa regarding the difficulty in gaining insights from "the customer's mind" (Rust & Oliver, 1994; Woodall, 2003; Khalifa, 2004).

Staff assumptions about what customers want are not always accurate, as is evidenced in the gap analyses between customer perceptions and those of the staff observers (McKnight, 2007b; 2009; McKnight & Berrington, 2008). This reinforces the importance of defining customer values from the perspective of the customer (Woodruff & Gardial, 1996; Rust & Oliver, 1994; Woodall, 2003; Khalifa, 2004). Using pre-determined customer value dimensions may not accurately capture all relevant information from customers that would be useful for decision-making regarding services required.

The definition of customer value from an economic perspective is legitimate in the context of customer sacrifice and benefit related to access to and use of library and information services. Customers speak of "ease of use" and "easy access", which relate to the notion of cost and benefit. In addition, the publications explicitly introduce the notion of customer defined "irritants", which could be related to the concept of sacrifice in an economic model (McKnight, 2007b; 2009; McKnight & Berrington, 2008). This could be the subject of further research to identify the strength of the link between "irritants" and customer "sacrifice".

Using the definitions of library customer values, as identified in publications included in this thesis, it is possible to reach a number of specific findings regarding customer values.

1.   A definition of a core set of academic library customer values, from the perspective of academic staff and undergraduate on-campus students, in an Australian and United Kingdom context, was possible. McKnight provides the comparative list, which are reproduced in Tables 5 and 6 (McKnight, 2006b and 2008).

The key to the colour themes is below; ***Bold and italics are local values***:

Information Resources	IT Infrastructure
Physical space	Borrowing policies
Library staff attributes and training	Opening Hours
Costs of services	Signage

Table 5: Library Customer Values in order of Importance - Australian and UK Students (From McKnight, 2006b) (colour coded to identify common themes)

	Australian Students - 2002	UK Students – 2005
1	Relevant, current, accessible book collection	Easy access to materials where and when I need them
2	Easy access to more online Library resources	Inspiring environment which supports diverse needs
3	Sufficient copies of key texts	Comprehensive available relevant resources
4	Approachable, knowledgeable, competent staff	Knowledgeable friendly accessible staff who help me
5	Access to and availability of journals	Good quality cheap photocopying and printing
6	Affordable, flexible and reliable photocopying and printing	Availability of reliable up-to-date technology and facilities
7	Reliable, up to date IT computer support	Timely targeted training
8	Timely access to Library staff and online help	User friendly loans policies and procedures
9	Environment conducive to study	Opening hours which meet user needs
10	Adequate opening hours	Services clearly communicated to users
11	Clear signage	Proactive partnerships between academic staff and library staff

Table 6: Library Customer Values in order of Importance - Australian and UK Academic Staff (From McKnight, 2006b) (colour coded to identify common themes)

	Australian Academic Staff - 2002	UK Academic Staff – 2005
1	Current relevant comprehensive collection	Easy access to materials where and when I need them
2	Reliable electronic access	Comprehensive available relevant resources
3	Access to material in other libraries	Knowledgeable friendly accessible staff who help me
4	Sufficient funding to maintain free core services	Proactive partnership between academic staff and library staff
5	User friendly accurate catalogue	Inspiring environment that supports diverse needs
6	Easy reliable access to resources and services	Opening hours that meet user needs
7	Competent friendly proactive staff	*Managing multi-media and curriculum content*
8	Timely responsive service	User friendly loans policies and procedures
9	Flexible borrowing system	Good quality cheap photocopying and printing
10	*Environmentally responsible*	Availability of reliable up-to-date technologies and facilities
11	Adequate opening hours	Timely targeted training
12	Services clearly communicated	Services clearly communicated to users
13	Good physical environment to support learning and research	
14	Effective library skills training	

The commonality between the Australian and UK library customers is explored in (Mcknight, 2008), highlighting that there is a set of core library customer values.

2.   Different customer segments of the two library and information services, which are the focus of the publications, identified similar customer values but allocated a different level of importance to these as evidenced in Figure 6 (McKnight, 2008). The equivalent figure for the comparison of English academic staff and customer values is contained in Figure 19 on page 102.

Figure 6: Comparison of Australian University Library Value Factors - by Level of Importance (From McKnight, 2008)
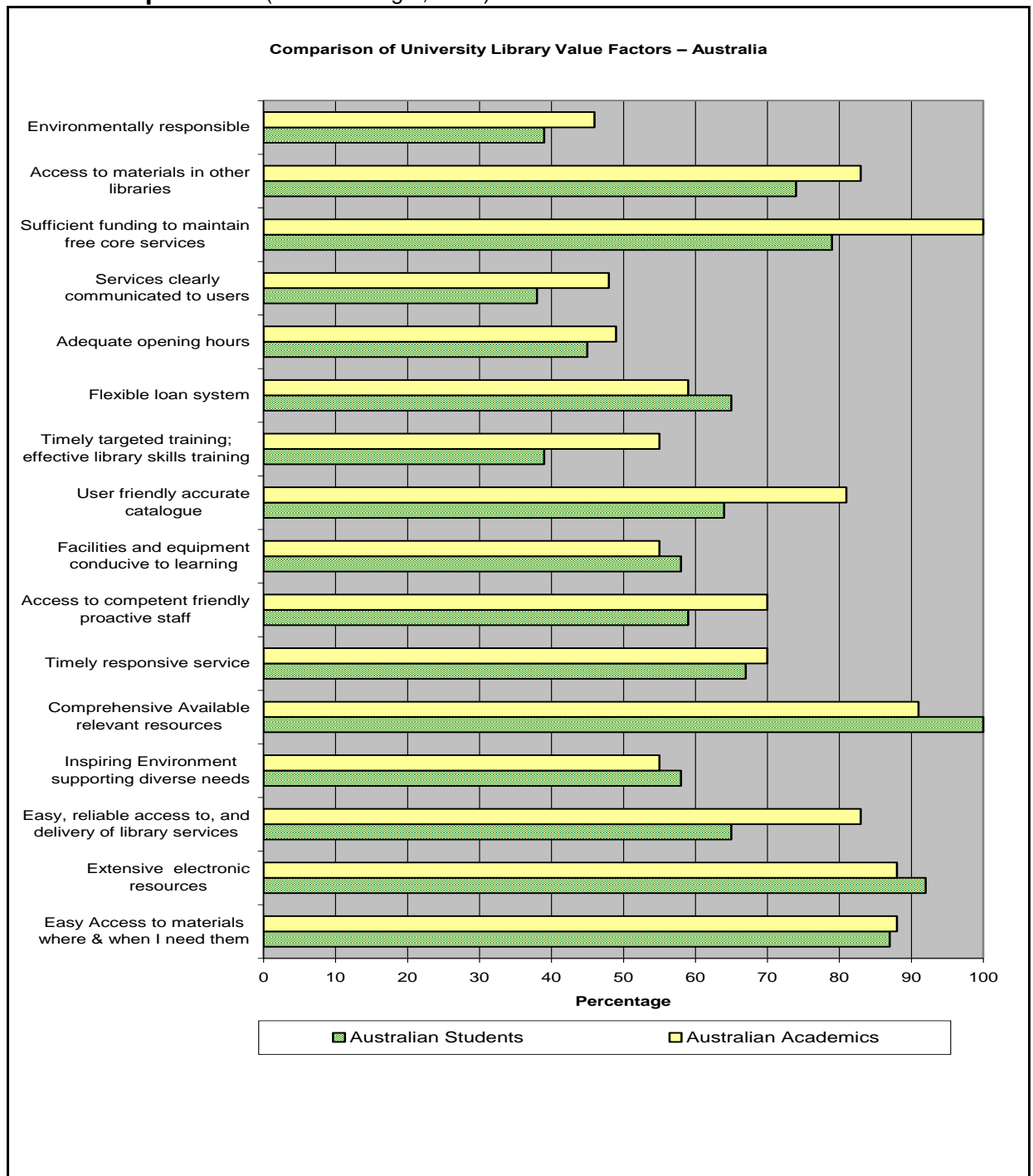
3. Library staff assumptions about what customers want are not always accurate, as evidenced in the gap analyses between customer perceptions and those of the library staff observers. See Figure 7 as an example. The identification of this gap between library staff and customer perceptions is

explored more fully in Section 4.4 as an aid to implementing change within an organisation.

Figure 7: Sample Student Hierarchy of Irritants - Gap Chart (from McKnight, 2009)

Hierarchy of Irritants - Students - Gaps

Note: Observers = Library staff

Poor staff service	
Poor physical environment	
Unsatisfactory loan rules	
Poor communication and feedback	
Inadequate library skills training	
Difficulties with printing and photocopying	
Problems with the catalogue	
Service delays	
Limited hours of access	
Difficulties with technology and electronic access	
Collection inadequacies	
Materials not where they're supposed to be	

Observers
Students

0 %   50 %   100 %
LOW   Relative Importance   HIGH

4.   University library and information service customers define multiple values (or multiple dimensions of a similar value) that are expressed in a hierarchy of importance; all are important, but some are more important from a customer perspective, as expressed in the following Pareto chart (Figure 8) (McKnight, 2009).

Figure 8: Sample Student Hierarchy of Value – Pareto Chart (From McKnight, 2009)

Students Hierarchy of Value – Pareto Chart

X axis – Value Propositions
Y axis – Cumulative total by adding the value propositions in ranked order

B Easy access to materials where & when I need them
A Inspiring environment which supports diverse needs
G Comprehensive available relevant resources
H Knowledgeable friendly accessible staff who help me
C Good quality cheap photocopying & printing
K Availability of reliable up to date technologies and facilities
F Timely targeted training
E User friendly loans policies & procedures
D Opening hours which meet user needs
J Services clearly communicated to users
I Proactive partnerships between Academic staff and Library
L Managing multi media & curriculum content

5.   Time changes the expression of values. For instance, access to electronic full-text journals was, in 2000, considered as a 'delighter' or 'wow' service and was explicitly mentioned as a unique customer value; in 2005, it is a basic, anticipated service and is included as simply a component of customer definitions of 'relevant, comprehensive range of information resources'. "What once were 'wow' services become basic services, so the bar continues to rise as time goes on" (McKnight, 2007a, p.35).

6.   Analysis of the research findings identified that academic library customers often express irritants as the opposite of the value identified. Just as in Human Resource Management, known for decades, Herzberg identifies "hygiene factors" (Herzberg, 1974). The thesis introduces the concept for library customers. Table 7 provides an example of values and the related irritants (McKnight & Berrington, 2008).

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Table 7: Examples of Consolidated Customer Values and Related Irritants (From McKnight & Berrington, 2008)

CONSOLIDATED VALUES and IRRITANTS – Collections	CONSOLIDATED VALUES and IRRITANTS – Environment
Related Values • Easy access to materials where and when I need them • Comprehensive, available, relevant resources **Related Irritants** • Inadequacy of the collection and its management • Cannot find materials I need • Problems with the catalogue	**Related Values** • Inspiring environment that supports diverse needs **Related Irritants** • Noisy inappropriate study environment **Related Value** • Good quality cheap photocopying and printing **Related Irritant** • Inadequate and expensive photocopying and printing **Related Value** • User friendly loans policies and procedures **Related Irritant** • Restrictive and difficult loans policies and practices **Related Value** • Opening hours which meet user needs **Related Irritant** • Inadequate opening hours **Related Value** • Availability of reliable up-to-date technology and facilities **Related Irritant** • Unreliable and limited IT / AV equipment

7.   The value and irritant factors identified in the research at the two university library services, as shown in Figure 9 (page 39), demonstrate that library customers can identify service attributes that are not necessarily related to a library service, for example: environmentally responsible library services which were a value factor identified (McKnight, 2008). Similarly, the

local factors relate to aspects of local service delivery (for instance, sufficient funding to maintain free core services was identified in customer value workshops in Australia at the time of the introduction of student fees; managing Virtual Learning Environment multi-media curriculum content was related to the fact that both library services were associated with services that support eLearning in their institutions. The local irritants identified were all associated with "hygiene" factors that were evident at the UK library service.

Figure 9: The Links between Identified *Values* and *Irritants* (Adapted from McKnight & Berrington, 2008)
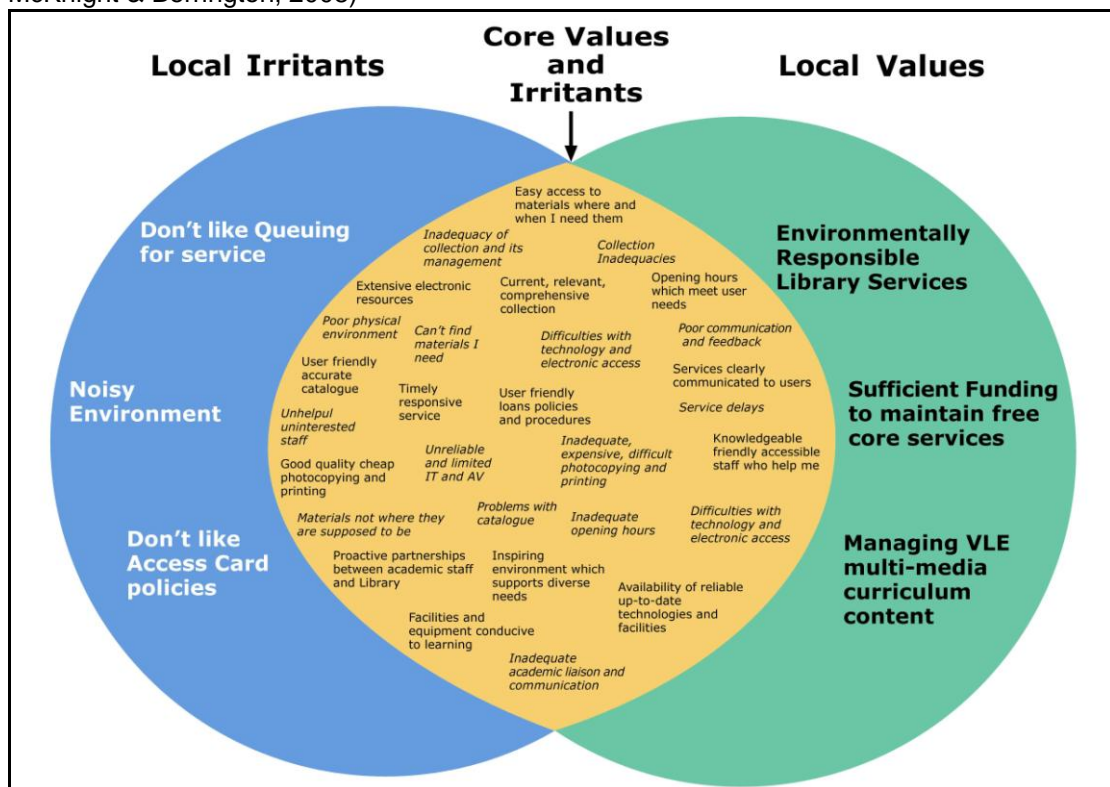
Closely related to the concept of customer *value* is that of customer *satisfaction*, which is discussed in the next Section.

4.2 Customer Satisfaction

There is a wealth of literature on the importance of measuring service quality and customer satisfaction, for example: (Altman & Hernon, 1998; Andaleeb & Simmonds, 1998; Hiller, 2001; Dole, 2002; Brophy, 2006a; Chim, 2007). Customer satisfaction is normally defined as the degree to which customer expectations of a product or service are met or exceeded. It is closely related to a definition of customer value already mentioned, that is: the difference between the benefits that a customer receives from the product or service and the effort and cost that the customer has to invest to get the product or service. As such, there is confusion in the literature as to what is clearly meant when discussing customer value, service quality and customer satisfaction, as sometimes the terms are used interchangeably.

Woodruff & Gardial provide an explanation of the differences between customer value and customer satisfaction, which is summarised in Table 8 (overleaf) (Woodruff & Gardial, 1996). This thesis supports Woodruff & Gardial's definitions, with customer value and customer satisfaction being treated as separate but related concepts when considering interventions to improve customer value and perceptions of satisfaction (Woodruff & Gardial, 1996).

Both concepts are important if trying to understand what service priorities and attributes will deliver value to the customer, and how to tell whether the service organisation is in fact delivering value, described as customer satisfaction. These two concepts are integral to this thesis. One of the underlying themes of the *published work*, of course, is the research into customer values and customer satisfaction is aimed at *defining* and *implementing* actions that will deliver value and increase satisfaction. As Cook points out, "Monitoring customer satisfaction is a pointless exercise unless management is committed to the process and likely to act on the results" (Cook, 2002, p.86).

Table 8: Differences between Customer Value and Customer Satisfaction (reproduced with *italics* from Woodruff & Gardial, 1996, p.98)

Customer Value is …	Customer Satisfaction is …
What the customer desires from a product or service	The customer's *reaction to or feeling about* what he or she received – a comparison between the actual performance of the product and the performance standard
Exhibits a future orientation; is independent of the timing of the product use/consumption	Tends to exhibit a historical orientation; is a judgment formed during or after product/service use or consumption
Exists independent of any particular product/service offering or supplier organisation	Is an evaluation directed at a particular product/service offering or supplier organisation
Provides *direction* for the organisation; *what they should* do to create value	Provides a *report card* for the organisation: *how they are doing (or how they have done)* with their value creation efforts

Measuring customer satisfaction requires certain information (Brophy, 2006b; Matthews, 2007). Firstly, who are the existing customers? In the case of this thesis, there are a number of customer segments identified that have been subjected to research, and two segments, in particular, academic staff and undergraduate on-campus students, have been the focus in the publications, with a number of comparisons based on the data gathered.

The next requirement for measuring customer satisfaction is to understand the expectations of customers (Zeithaml *et al,* 1990; Brophy, 2006b). The Customer Value Discovery exercises have been used to identify these, and for particular customer segments.

As indicated previously, the identification of customer values can single out service requirements that are not even provided by the service organisation. Measuring expectations and current performance on existing services only may ignore new and important customer requirements that are not yet provided. This issue will be explored further in Section 4.3 where the types of

tools and methodologies for measuring customer perceptions of value, performance and satisfaction are discussed.

The early publications in this thesis focused on the identification of customer values, and gaps between current and ideal performance against the values. The purpose was to identify services that were of importance to academic library and information service customers and which required interventions to improve performance. In 2005 and 2007, Nottingham Trent University (NTU) conducted student satisfaction surveys that enabled comparison of longitudinal data on student satisfaction ratings with the impact of library-related interventions, which were aimed at delivering customer value. The NTU student satisfaction survey canvassed 17 service elements that encompassed the main library customer values and also some specific irritants identified in the 2005 Customer Value Discovery work. These data were supplemented by the U.K.'s annual National Student Survey (NSS) student satisfaction results. Using these data, two publications report on the comparative data with respect to interventions and the subsequent impact on customer satisfaction (McKnight, 2007b; and McKnight & Berrington, 2008).

4.2.1 Discussion of 'Customer Satisfaction'

A formal recognition of the importance of customer satisfaction, and the measurement of customer satisfaction, can be found in the development of the International Standards Organisation's suite of quality management standards in the ISO 9000 series. Criticisms of the original ISO 9000 standards claimed that the standards, in the absence of seeking feedback from customers, did not assure that a quality service or product was actually delivered. The ISO 9000:2000 revisions were as a result of this criticism and have a focus on "ensuring that the quality system delivers a quality outcome for the customer and placing emphasis on continual improvement" (Hill, Self & Roche, 2002, p.10). The emphasis was on being able to measure customer satisfaction to inform actions for further service improvement. This issue is further explored in Section 4.4.

As already mentioned, customer value and customer satisfaction are often used interchangeably. However, the publications in this thesis make clear distinctions between customer values (and customer irritations), as ideal services to be strived for (and where they fall short), and customer satisfaction, which is a report card on how the service is currently performing against a suite of service parameters. Customer values and customer irritations are used to help inform actions that may have a beneficial impact on customer satisfaction.

The U.K. National Student Survey (U.K. National Student Survey, 2009) on graduate student perceptions of university experiences asks only one library-related question: "The library's resources and services are good enough for my needs". This is not a particularly useful question as the definition of "needs" is not clear, but "satisfaction" is implied. However, the results enable a trend to be benchmarked, but provides no additional information about what aspects of the library's resources and services are deficient or, on the contrary, are performing well. This highlights the need to be careful regarding the use of generalised customer satisfaction ratings, which provide insight at the broadest level only. More granular information is required on customer satisfaction to inform continual service improvement.

The concept of service quality is also linked to customer satisfaction and is sometimes used as a surrogate measure for customer satisfaction especially if one of the measures of quality is satisfaction (Holbrook, 1994; Bolton & Drew, 1994). This is particularly important in the discussion on the use of service quality instruments in the context of library and information services (in Section 4.3), as the service quality scores commonly used by academic libraries can be construed as indicators of customer satisfaction (Woodberry, 2006).

Parasuraman *et al* presented one of the seminal works on service quality and its link to lowering manufacturing costs and improving productivity, which are of particular importance to the producer of a good or service (Parasuraman *et al*, 1985). While this research was focused in the commercial sector, the

concepts are also applicable in the not-for-profit service sector as represented in this thesis. The use of the ISO 9000 standards in service organisations also attests to this, although its origins were in the manufacturing sector.

Parasuraman *et al* identified three underlying themes: that service quality is more difficult for the consumer to evaluate than the quality of goods; service quality perceptions result from a comparison of consumer expectations with actual service performance; and quality evaluations are not made solely on the outcome of a service; they also involve evaluations of the *process* of service delivery (Parasuraman *et al*, 1985). The importance of the process, as well as the actual outcome of the service transaction, has a strong resonance with the findings of one of the publications in this thesis (McKnight & Berrington, 2008) in that, in a service industry such as a library, all interactions and transactions, *the process*, either with a staff member or a resource (e.g. book) or service (e.g. web page), can both satisfy and irritate a customer at the same time.

Closing gaps between customer expectations and experiences of actual service delivery impacts on the customers' perception of satisfaction. The methodologies that explore importance and performance, such as that described by Parasuraman *et al* and others described in Section 4.3, provide data that can be used to inform service priorities (Parasuraman *et al*, 1985; 1988).

> "The result on the value-satisfaction link suggests that to enhance customer satisfaction, a service provider can spend its effort on improving the value perceived by customers. … By focusing on attributes with high importance rating, a service provider can tackle those critical weaknesses that severely hamper its efforts to enhance customer value. By working on those weaknesses, a service provider could improve value and hence customer satisfaction" (Lam *et al*, 2004, p.308).

These observations by Lam *et al* are 'verified' by the publications contained in this thesis. The hierarchies of value and irritation point to the importance of particular value propositions, and the gap analysis on performance and expectation identifies areas for attention. Indeed, the publications identified that customers identify irritants or weaknesses related to services that they

also value, and that added benefit can be derived by customers if irritations are proactively reduced or removed. "There is a direct correlation between many of the irritants and values. Therefore, by focusing on reducing irritation, there is a corresponding improvement in value for the customer" (McKnight & Berrington, 2008, p.40).

It is claimed that measuring customer satisfaction is the most commonly used indicator of library performance (Morris & Barron, 1998; Cullen, 2001; Woodberry, 2006). However, to only focus on customer satisfaction is a mistake if it is possible to receive high scores in customer satisfaction surveys and still not be fulfilling the expectations of library customers (U.K. Audit Commission, 2002). Customers can say they are satisfied with a product or service but not remain loyal to the provider (Chandrashekaran *et al*, 2007). So, 'satisfying the customer' is not enough (Schneider and Bowen, 1999; Spreng & MacKoy, 1996). Degrees of satisfaction and consideration of all elements contributing to satisfaction are therefore important, given that Schneider & Bowen identified that "totally satisfied" customers are six times likely to be loyal than a "satisfied" customer (Schneider & Bowen, 1999).

A further criticism of focusing on 'just' customer satisfaction is that the impact of the measurement may not elicit the responsiveness from library managers and library staff that will lead to continuous improvement in services and resources (Applegate, 1993). Measuring customer satisfaction is important, and it is not a single one-off event. Management techniques, such as Kaizen, LEAN production, Quality Function Deployment, Six Sigma, and Total Quality Management, stress the concept of continuous improvement to maintain or improve customer satisfaction (Setijono & Dahlgaard, 2007; Law, 2009). The notion of continuous improvement has to be embedded into the culture of a library as the environment is rapidly changing and the expectations of customers change over time (Moghaddam & Moballeghi, 2008). Understanding *customer values*, the future desired description of an ideal service, enables focus on service improvement as service objectives and ongoing strategies and actions can be developed to deliver on these values without the constant need for re-measuring satisfaction *per se* (McKnight

2006c; 2007a; McKnight & Berrington, 2008). Customer satisfaction is important, but it is not the sole criterion to be considered when identifying service improvements.

There are other risks associated with relying on customer satisfaction. The instrument used, as discussed in Section 4.3, may restrain feedback to only those services that are currently offered. The Customer Value Discovery workshops identified service expectations that were not associated with current library services (for example, the expectation of customers that the library service would be environmentally responsible) so reliance on just customer satisfaction scores may not produce information that could be used to further enhance services for customers (McKnight, 2006b).

4.2.2 Key Findings from the Publications Related to 'Customer Satisfaction'

1.   The publications in this thesis clarify the distinctions between customer values and customer satisfaction with respect to organisational decision-making: customer values provide *direction* for the organisation; *what they should* do to create value from the customer perspective and customer satisfaction provides a *report card* for the organisation: *how they are doing (or how they have done)* with their value creation efforts (McKnight, 2007b; McKnight & Berrington, 2008).

2.   The identification of customer values *and* customer irritations helps to inform actions that may have a beneficial impact on customer satisfaction. Through the Interactive Modelling process, it has been demonstrated that by reducing irritation, there is an improvement in value for the customer. Should the irritation have a related value proposition, action to reduce the irritation will have a beneficial impact on perceptions of value in the related propositions, thus increasing the perception of satisfaction even further (McKnight & Berrington, 2008).

3.   Closing gaps between customer expectations and actual performance will have a positive impact on customers' perception of satisfaction. This can be demonstrated through the Interactive Value Modelling process, and was confirmed by the longitudinal studies of customer satisfaction with the NTU library service (McKnight, 2006b; 2006c; 2007b; 2009; and McKnight & Berrington, 2008).

4.   Focusing on addressing customer values that are ranked highly in the Hierarchy of Value, and which have significant gaps between desired and actual performance, will deliver greater levels of customer satisfaction than will focusing on value propositions that do not rank highly. The Pareto Charts of Hierarchies of Value and Irritation help to focus on which service attributes are likely to deliver greater impact on customer satisfaction as do the results of the interactive value modelling process (McKnight, 2009).

5.   From the perspective of the customer, the actual service or resource is only one aspect of the customer satisfaction/service quality dimension. The interactions and experiences that are experienced in the process of gaining access to a service, or using the service, are also important. These process-related experiences are often expressed as an irritation, for example: "cannot find materials I need", and these have an impact on customers' perceptions of satisfaction (McKnight, 2008).

6.   Being satisfied does not necessarily mean that there isn't room for improvement. Customers can express overall satisfaction with a service, but articulate many ways that the service can be improved against their ideal customer values. Thus measuring satisfaction is only but one tool for managers to help improve services to customers (McKnight, 2009).

7.   Interactive Value Modelling is a tool to aid decision-making, as it provides insight into the anticipated impact on customer satisfaction that potential interventions may cause. The publications and linking chapter place information on Interactive Value Modelling in the public domain (McKnight, 2009).

4.3   Tools and Methodologies for Gauging Customer Perceptions

Rust & Oliver assert that an understanding of the concepts of value, quality and satisfaction are required for managing service quality effectively. They emphasise the subjectivity of these concepts that they describe as being "in the customer's mind" (Rust & Oliver, 1994, p.3). Instruments and methodologies have been developed to provide qualitative and quantitative interpretations of what is "in the customer's mind" and these are explored in this section. The tools that have been included are those that are most commonly in use in academic library and information services, and these are then compared to the Customer Value Discovery methodology that is featured in the publications. The key to Customer Value Discovery is that it does not presume to categorise or preempt what might be in the customer's mind.

The premise for measuring and evaluating service from a customer perspective is to establish what is expected by the customer, what is experienced by/delivered to the customer and, thereby, gain an understanding of the extent of the gap (if any) between what is expected and what is actually delivered to the customer. Matthews adapts research undertaken by Wisniewski & Donnelly to identify five service quality gaps in a library context (Matthews, 2007; Wisniewski & Donnelly, 1996). The *service gap* arises from the difference between the perceived service and the expected service (this requires customers to have a prior perception of what excellence looks like for the service being researched). The *understanding gap* is the difference between customer service expectations and the service provider's understanding of customer expectations. The *design gap* is the gap between the service provider's understanding of customer expectations and the design and specifications of service quality. The *delivery gap* is the gap between the specification of service quality and the actual service delivered. The *communications gap* is the difference between what is actually delivered and what has been promised compared to the pervious experiences of the customer with similar services. All and any of these gaps can be identified by customers using the Customer Value Discovery methodology if they are of concern to the customer. For instance, academic library customers identified

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'easy access to materials where and when I need them' as a value factor; measuring the importance and current performance of this could result in a design and/or delivery gap; similarly, measuring the importance and current performance of another customer value 'services clearly conveyed to users' would generate a communications gap.

A major contribution of the research by Parasuraman *et al* was the concept of, and instrument for, measuring the gap between customers' anticipated or expected service experience and the perception of the quality of the service that was actually received (Matthews, 2007). The gaps, or scores, between expectation and perception resulted in the development of SERVQUAL (Parasuraman *et al* 1988; 1991; Zeithaml *et al*, 1990), an instrument for quantifying service quality that is explained in Section 4.3.1.

In the library context, the measurement of impact has been the focus of a number of studies. Orr developed the Input-Process-Output-Outcomes model of evaluating library impact (Orr, 1973). Saracevic & Kantor developed a framework and taxonomy for establishing the value that may arise from using library and information services (Saracevic & Kantor, 1997). They identified three areas for interaction between the customer and the library service that impact on the experience and these are shown in Table 9.

Table 9: Saracevic & Kantor's Framework of Library Impact (Saracevic & Kantor's, 1997)

Library Service	Individual Perspectives
Resources	Availability
	Accessibility
	Quality
Use of Resources and Services	Convenience
	Ease of Use
	Frustrations Incurred
	Success in using the Service or Resource
	Effort required to move from one service to another
Operations and Environment	Clarity and Reasonable-ness of Policies and Procedures
	Appropriateness of Facilities
	Helpfulness, Efficiency and Knowledge of staff members
	Reliability and Ease of Use of Equipment

The terminology described above has similarity to quality service dimensions identified in the Customer Value Discovery workshops featured in the publications. For example, the customer defined value 'comprehensive available relevant resources' would relate directly to "Resources" in the Saracevic & Kantor framework; 'easy access to materials where and when I need them' would relate to "Use of resources and services" in the Saracevic & Kantor framework; 'Proactive partnership between academic staff and library' would be included in "Operations and Environment" in the Saracevic & Kantor framework (Saracevic & Kantor, 1997). These dimensions are also similar to those used within two key library performance measurement instruments: LibQUAL+™ (http://www.libqual.org/) and the Rodski Research Group Academic Library Customer Survey (now Insync Surveys (http://www.insyncsurveys.com.au/)). LibQUAL+™ is an internationally used instrument, while the Rodski Research Group Academic Library Customer Survey is used extensively in Australia and New Zealand. Both methodologies are described below. However, before describing these, it is appropriate to explore the precursor to LibQUAL, which is SERVQUAL (Parasuraman *et al,*

1988; 1991). The Kano Model, although a tool rarely used in the context of libraries, is also discussed, as it occupies an important place in the literature on service quality and customer satisfaction (Kano *et al,* 1984).

4.3.1 SERVQUAL

As noted earlier, SERVQUAL was developed by Parasuraman *et al* to serve management in the for-profit sector and was aimed at identifying factors what would lower manufacturing costs and improve productivity. Their research identified that it was important to understand the potential purchasing intentions of customers, as well as lowering manufacturing costs and improving productivity, to create and maintain an efficient and effective organisation (Parasuraman *et al,* 1985; Garvin, 1987).

For Furneaux, SERVQUAL represents service quality as the discrepancy between a customer's expectations for a service offering and the customer's perceptions of the service received, requiring respondents to answer questions about both their expectations and their perceptions (Furneaux, 2006). The use of perceived, as opposed to actual, service received makes the SERVQUAL measure an attitude measure that is related to, but not the same as, satisfaction (Parasuraman *et al*, 1988).

SERVQUAL's five assumed dimensions of service quality, which are another way of understanding customer value, are:

- Tangibles - Appearance of physical facilities, equipment, personnel, and communication materials

- Reliability - Ability to perform the promised service dependably and accurately

- Responsiveness - Willingness to help customers and provide prompt service

- Assurance - Knowledge and courtesy of employees and their ability to convey trust and confidence

- Empathy - The firm provides care and individualised attention to its customers.

The SERVQUAL methodology involves surveying customers against key *pre-defined* service dimensions and then comparing the outcomes against the customer's perception of an excellent organisation on those same dimensions (Parasuraman *et al*, 1988; Rust & Oliver, 1994). The fact that the survey questions are pre-defined constrains the feedback provided by customers as they can only respond to the questions that are asked.

SERVQUAL has been used widely in service industries, including some library services. Nitecki provides a list of publications describing empirical research on the application of SERVQUAL in libraries (Nitecki, 2007). Others have identified strengths and weaknesses of SERVQUAL, especially the difficulty of using it in the service sector (Fedoroff, n.d.; Van Dyke *et al*, 1997; Augustyn & Seakhoa-King, 2004; Matthews, 2007).

A key university library application of SERVQUAL was at the Texas A&M University, where staff undertook research involving service quality perceptions of sample library customers (Cook & Heath, 2000; 2001; Cook, Heath and Thompson, 2000). Because of difficulties with SERVQUAL in the library sector, LibQUAL, an adaptation of SERVQUAL, was specifically designed for library services, in an attempt to overcome SERVQUAL's perceived weaknesses when used in that context.

The creation of LibQUAL+™ (the commercial version of the initial LIBQUAL tool), which is discussed in Section 4.3.2, is an example of how SERVQUAL has been adapted in an attempt to overcome perceived weaknesses of the instrument's use within library and information services.

4.3.2 LibQUAL+™

As a result of their experience in using SERVQUAL at the Texas A&M University, Cook & Heath developed LibQUAL through the auspices of the Association of Research Libraries in 2000 (Cook & Heath, 2000; 2001). LibQUAL+™ provides data collection, analysis and presentation tools through

a web-based questionnaire delivered to staff and students who use an academic library (Brophy, 2006b). The questions are grouped into three dimensions:

- Affect of Service: including empathy of staff, responsiveness, assurance and reliability

- Information Control: including the scope of the content made available by the library, convenience, ease of navigation, timeliness, the equipment made available and self-reliance

- The Library as Place: including utilitarian space, the building as a symbol and the library as a refuge.

Thompson describes the development of LibQUAL and LibQUAL+™ (the later being an enhanced and trademarked version of the first design, which is commercially marketed to library services worldwide) and its growth in international use (Thompson, 2009). Academic libraries, in the main, have used the LibQUAL+™ instrument. Its first use in the United Kingdom was in 2003 with a group of 20 members of Society of College, National and Research Libraries (SCONUL). Two Australian university libraries used LibQUAL+™ in 2004 (Association of Research Libraries, 2009a). As there was a need to identify an appropriate tool to inform organisational decision-making, the author conducted the first Customer Value Discovery workshops at Deakin University Library (Australia) in 1999, which pre-dated the development of LibQUAL and its subsequent versions. SERVQUAL was unknown in Australia in 1999, and there is no evidence of it being used in Australian academic libraries.

There have been many publications describing the use of LibQUAL+™ in libraries, and a comprehensive list is included on the LibQual website. (Appendix 1 contains a copy of the related publications list as evidence.) Included in the related publications list on that web site is one of the author's publications, (McKnight, 2008), which includes a comparison of LibQUAL+™ and Customer Value Discovery methodology.

There can be no doubt that LibQUAL+™ has had an impact upon service quality research in libraries worldwide. However, there have been criticisms of LibQUAL in addition to those of McKnight (Roszkowski, Baky & Jones, 2005; Shi & Levy. 2005; Brophy, 2006b; Bower & Bradford, 2007; McKnight, 2008; 2009). The criticisms question the tool's effectiveness in helping managers develop organisational excellence and decision-making, and these criticisms are explored below. The most obvious though, is that, as with SERVQUAL, LibQUAL+™ uses pre-defined survey questions, which have been developed from the perspective of the library manager, not from the library customer perspective. Brophy notes that the questions are library-centric, not customer centric (Brophy, 2006b).

In addition to this weakness, the focus of the dimensions, i.e. the three broad headings ('Affect of Service'; 'Information Control' and 'Library as Place'), has been challenged. One of the dimensions explored in LibQUAL+™ relates to the 'library as place' and this is becoming increasingly irrelevant with the wide spread use of the internet and other information technologies employed to provide access to information. The Association of Research Libraries is responding to this criticism by developing a parallel quality assessment system for digital libraries, DigiQUAL™ and information about this project, which is still in development, can be found at <http://www.digiqual.org/digiqual/index.cfm>. However, in the context of academic libraries, the service provided has both physical and digital dimensions, so a tool that provided insights into both service dimensions would be more suitable, rather than two separate instruments.

A further criticism of LibQUAL+™ is the difficulty in interpreting the data presented (Roszkowski *et al*, 2005; Bower & Bradford, 2007). Roszkowski *et al* titled their paper "So which score on the LibQUAL+™ tells me if library users are satisfied?" (Roszkowski *et al*, 2005) This title highlights the problems in interpreting the data and charts provided by the LibQUAL+™ instrument. This weakness of the LibQUAL+™ outputs has also been highlighted in the author's publications (McKnight, 2008; 2009), particularly from the perspective of the lack of staff engagement with the data gathered,

and difficulty in analysis of the complex charts and data sets that are delivered by LibQUAL+™.

4.3.3 The Kano Model

The work by Kano *et al* also had a major influence on the concept of service quality and customer satisfaction and, like the contribution of Parasuraman *et al* was focused primarily on manufacturing industries (Kano *et al*, 1984; Parasuraman *et al,* 1985; 1988). The Kano Model, as it is known, was developed to gauge customers' perceptions of the functionality of new *products* as opposed to *services* that SERVQUAL addresses, and tries to explain how customer satisfaction will change as customer requirements are met (Bayraktaroğlu & Özgen, 2008).

The Kano Model focuses on differentiating product features as opposed to focusing initially on customer needs. The model can be used to predict the degree of customer satisfaction based on the notion of fulfilling the expected needs of customers (quality and functionality) and by providing additional features that would also delight the customer, thus increasing the customer's perception of satisfaction.

Customers are asked two paired survey questions with the Kano Model, basically:
1. Rate your satisfaction if the product has this attribute? and
2. Rate your satisfaction if the product did not have this attribute? (Kano *et al*, 1884; Walden *et al*, 1993; Matthews, 2007).

The respondent is presented with four or five choices for these two questions:
- I like it.
- It is normally that way (feature is expected).
- I don't care (neutral).
- I can live with it.
- I don't like it.

While these questions can be adapted for service industries, they are focused on production industries.

An important contribution of the Kano Model (See Figure 10) is that it provides insight into the dynamics of how people arrive at some outcome (e.g. level of satisfaction) by comparing expectations (basic, satisfiers or delighters) with experience (quality characteristic performance). It identifies that different quality characteristics will elicit different responses from the customer depending upon what the customer expects relative to that characteristic. The model distinguishes between 'threshold' or 'basic' or 'normal' attributes of a product. These are similar terms and concepts that are applied to products, in the case of the Kano Model, and terms describing service performance attributes, such as 'exciters' or 'delighters' (Brophy, 2006b) and in the Customer Value Discovery methodology, 'basic' and 'delighter' attributes, as well as 'irritations' (McKnight, 2006c; 2007b; McKnight & Berrington, 2008).

Figure 10: Kano Model of Customer Satisfaction (From Mazur, 2002)
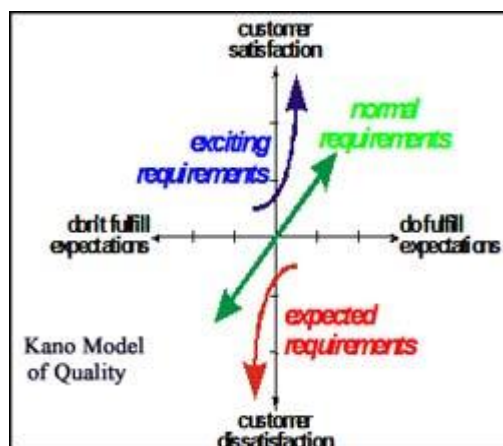
It has been noted that, when considering the Kano Model, the excitement features today become expected basic features on the future (Brophy, 2006b; Bayraktaroğlu & Özgen, 2008). As previously indicated, McKnight also reaches the same conclusion from the analysis of customer values identified through the Customer Value Discovery process (McKnight, 2006c; 2007b).

This issue is further explored in the context of continual improvement in Section 4.4.

4.3.4 Rodski Research Group Academic Library Customer Survey Instrument

The Rodski Research Group Academic Library Customer Survey instrument was developed in Australia by the Rodski Research Group (now Insync Surveys) at the behest of the Council of Australian University Librarians (CAUL) in 2000 (Woodberry, 2006). Just as with the SERVQUAL and KANO instruments, this development was taking place in parallel to, and separate from, the development of LibQUAL+™ (Association of Research Libraries, 2009b). The Rodski Research Group Academic Library Customer Survey instrument has been used as a benchmarking tool between CAUL member libraries; although academic libraries used other performance measurement tools, such as LibQUAL+™ and Customer Value Discovery, over the years.

The Rodski Client Satisfaction Survey Report (University of Newcastle Library Services, 2006) describes the instrument as a methodology which gives library management the opportunity to assess any gaps between client expectations and service delivery. The survey uses six service dimensions (as opposed to LibQUAL+™'s three) and these are:
- Communication
- Service Quality
- Service Delivery
- Facilities and Equipment
- Library Staff and
- Virtual Library.

Saw & Clark provide a comparison of Rodski and LibQUAL+™, highlighting similarities and differences. They identify that the surveys have similar aims and rating systems, but highlight that the Rodski instrument includes the concept of the digital library, a weakness of LibQUAL+™ identified above. Saw & Clark also identify criticisms of LibQUAL+™ that relate to repetition

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and confusion in some of the LibQUAL+™ questions. However, both methodologies are based on the questions that are developed in response to the needs of library management, not from the customer's perspective (Saw & Clark, 2005).

As with LibQUAL+™, a criticism of Rodski is that the outputs are very complex and detailed, with Saw & Clark referring to a "550 page report on the results and outcomes of the survey" (Saw & Clark, 2005). It is argued that, with such a dense report, the capacity for all library staff to engage with the data, analyse the results and then act upon the results to improve service delivery and customer satisfaction is extremely limited. This notion is further explored in Section 4.4.

4.3.5 Customer Value Discovery

SERVQUAL, LibQUAL, Rodski and the Kano Model have been developed to provide quantitative and qualitative methods for gaining customer insight. All rely on factors or dimensions that have been developed and, through research, are *considered* to be important indicators of customer perceptions of value, service quality and customer satisfaction. A differentiating dimension of Customer Value Discovery is that it starts from a blank sheet of paper and requires customers to identify, from their own experience and in their own words, the values, services, and level of service that are, in their view, the defining characteristics of an excellent service organisation.

The Customer Value Discovery methodology has been used in Australia since 1994 and in the United Kingdom since 2002. The concept was first developed by Austin (Albrecht, 1994b; Austin, 2007). Since 1995, the methodology and processes have been constantly refined to maximise its efficiency and effectiveness as a tool for identifying customers' Hierarchies of Value and Irritation in a variety of business settings, most notably in the finance, insurance and retail sectors (Austin, 2007). This thesis sheds light on a corporate-focused methodology to identify customer values from the perspective of not-for-profit library customers. The Customer Value Discovery

methodology has been demonstrated in a new context, university library services, and adapted for use in that environment.

Albrecht & Austin describe value modelling, which is integral to the customer value discovery process, as "a special method for discovering the *critical success factors* for any venture by eliciting views of a selected group of experts in a structured feedback meeting" (Albrecht & Austin, 1999). They go on to say that it is used for customer research where the *experts* in the feedback meeting are the *customers*. As noted earlier, a major difference between this methodology and those such as SERVQUAL, LibQUAL+™ and Rodski is that there are no predefined survey questions; the process starts with a blank sheet of paper and the values described are developed by the customers from their perspective, not from the perspective of the service provider.

Apart from the publications contained in this thesis, only two other publications are in the public domain that mention Customer Value Discovery (Australian Auditor-General, 2005; Sweeny, 2003). However, these do not describe the Customer Value Discovery process or its outcomes. Both are specific examples of use and do not question or explain the methodology. The first is an audit of the Value Creation Program, one of a number of feedback systems used by Centrelink, a large scale Australian government organisation (Australian Auditor-General, 2005). The Value Creation Program is a derivative of the original Customer Value Discovery methodology developed by Austin Thompson and Associates, now Enzyme International (Australia) (Albrecht, 2000). The other is a dissertation that includes a chapter on customer discovery and value modelling within Liverpool Victoria, an insurance and financial institution in the United Kingdom, which is based on the Customer Value Discovery methodology (Sweeny, 2003). Neither of these publications provides details of the methodology or outcomes (customer values) of the research process employed in the two organisations mentioned. As the methodology is normally used in for-profit organisations, the data gathered can provide strategic advantage to the organisation. In part, this explains the lack of published descriptions and results of this methodology.

Eldredge and Pickard provide inventories of research methods used in librarianship (Eldredge, 2004; Pickard, 2007). The concepts of Customer Value Discovery and identification of customer identified values are not mentioned in either's review, although both include methodologies that have informed this research and are part of the Customer Value Discovery process: Action Research; Analysis; Case Studies; Comparative Studies; Delphi Method (a tool for creating consensus amongst a large group of people); Focus Group methods; Gap Analysis; Narrative; Participant Observation; and Longitudinal Study. Therefore, this thesis adds to the body of knowledge of a methodology not normally associated with customer value research in the not-for-profit sector.

Originally, value modelling was informed by the Delphi process that was developed in the 1950s at the Rand Corporation and used primarily for technological forecasting. The Delphi process is based on a structured process for collecting and distilling knowledge from a group of experts by means of a series of questionnaires interspersed with controlled opinion feedback (Adler & Ziglio, 1996). The techniques used in the Customer Value Discovery workshops are informed by Systems Thinking to make sure that the customers are accorded equal opportunities to provide input to defining success. The process has a number of benefits: it prevents 'contamination' – an individual's views are not influenced by others at the workshop; it is democratic, in that all individual inputs from the customers have equal value; and voting is anonymous (Albrecht & Austin, 1999).

The Customer Value Discovery methodology requires a number of steps as outlined in Figure 11.

Figure 11: Customer Value Discovery Process © Enzyme International (Aust.) (From McKnight & Berrington, 2008)
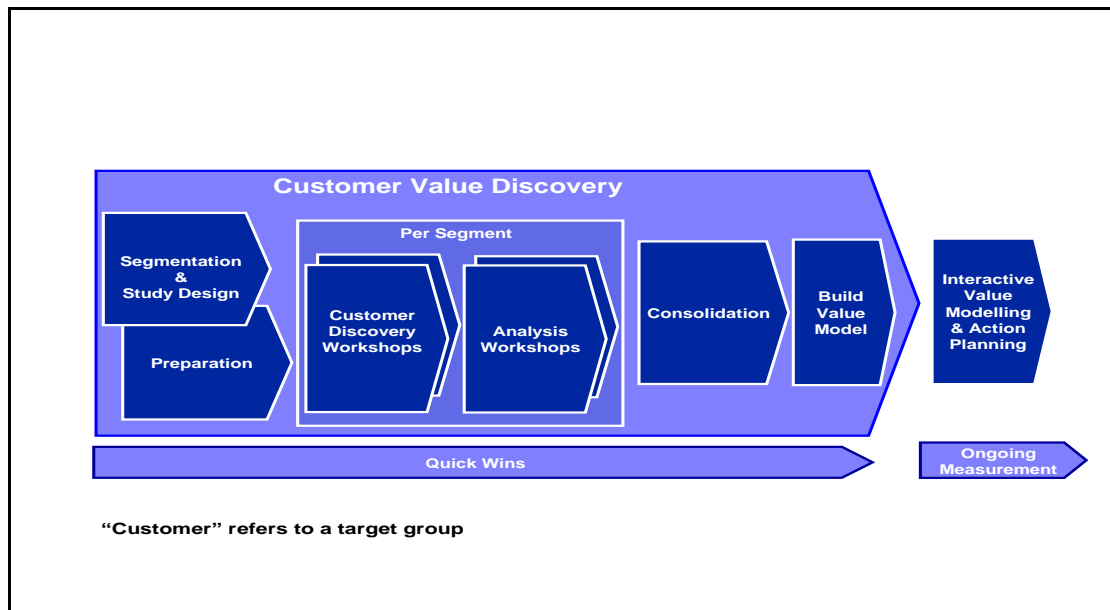
The steps outlined by Woodruff & Gardial and represented in Figure 5 on page 20, are similar to the steps described above (Woodruff & Gardial, 1996). The full processes are outlined in Figure 13 (page 66) for the identification of customer irritants and Figure 14 (page 67) for customer values.

4.3.5.1 Technology Support Tools for Customer Value Discovery

Before describing the customer value discovery processes in more detail, a description of the technology used to support the process is provided. Two software packages are used: OptionFinder®, an audience response system, utilising wireless technology and an interactive keypad system that combines audience voting, polling, cross-tabulation, and data reporting tools; and iThink®, used to help create models that simulate business processes and scenarios; pointing out the impacts of a new service, procedure or policy.

Any wireless audience response system could be used as long as there is the functionality for 'forced choice comparisons', whereby each identified value is paired with all other values in turn and the customers are required to vote for the more important item from each pair. Researchers often use a priority and

performance evaluation (or PAPE) survey, utilising a Likert scale, to establish priorities (Matthews, 2007) and this has also been referred to as Analytical Hierarchy Process (AHP), where the relative importance is ascertained by pair-wise comparisons (Bayraktaroğlu & Özgen, 2008). However, using the software to force customers to choose the most valued service element provides a robust method of creating a hierarchy of value propositions (and irritations). Since not all value propositions are as important as others (though all are important), the definition of the Hierarchy of Value and Irritation helps to define areas for service improvement, which supports organisational decision-making associated with the analysis of the research data . Figure 12 provides a variation of the representation of the hierarchies to that shown in Figure 7 on page 36.

Figure 12: Sample Diagram of a Hierarchy of Value (From Appendix 4)

Overall Hierarchy of Value
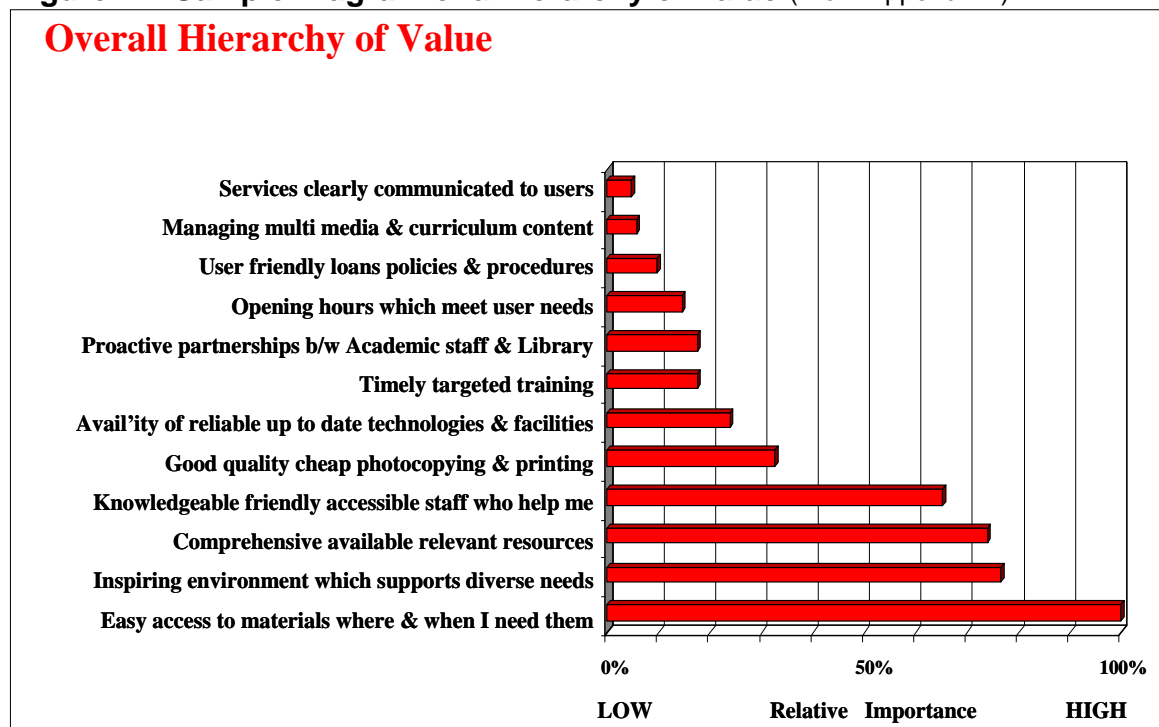
4.3.5.2 Customer Value Discovery Workshop Preparation

The facilitators and the client meet to clarify the scope of the research to be undertaken: which customer segments are to be included in the research; how many workshops will be necessary depending on the number of

customer segments identified; demographic information that must be collected to aid analysis of the research data so that the voting software can be used to provide quick feedback to management on these questions; and workshop logistics: location of workshops; promotion of the workshops to customers; inducements to be provided to encourage customer participation; and staff to act as observers at each workshop (McKnight & Austin, 2008).

Since the methodology is employed as an aid to organisational decision-making, the importance of senior management commitment to act upon the findings is stressed otherwise expectations (of customers and staff) will be raised and then dashed if there is no change in service or product. The importance of developing and enacting a communication strategy that starts before and continues after the research is undertaken is also stressed. Finally, the need for organisational processes to support planning, monitoring and reporting on initiatives taken as a result of the research is emphasised to maximise benefits from the research to influence change in the organisation. These practical issues are acknowledged as being important factors for successful research (Matthews, 2007; Ladhari & Morales, 2008).

Once all this information is agreed, workbooks are prepared for the customers who will attend the workshops. These workbooks are structured so that customers (and staff observers) are required to identify, from their own perspective, irritation factors and then value factors after listening to facilitator prompts to the various questions in the workbook. An example of the facilitator prompts and questions from the facilitator is included in Table 10.

Table 10: Sample Customer Value Discovery Workbook Questions (Taken from the NTU customer workshop workbook)

Instructions from the Facilitator:

Think about the service you receive when you deal with [client]. Please use only short phrases rather than long narratives.

Questions from the Facilitator:

When you think about what they do and how they do it, what are the main problems or issues?

What makes you angry? - Things that should never be allowed to occur?

What disappoints or frustrates you?

………

Consider all the ideas you have generated in response to the above set of questions. View them as a single list of issues and select the six you believe are **the most important** ones to focus on.

The questions in the workbook are not typical survey questions about the services being researched. There are no pre-determined survey questions about specific aspects of services. Such survey questions can be problematic: they eliminate personal contact between the respondent and the researcher; answers cannot be qualified easily; and they are only as good as the wording of the questions (Matthews, 2007). However, the most serious drawback, from the perspective of this research, is that the questions contained in surveys, whether pre-tested on focus groups or not, tend to reflect the issues that management believe to be important. The benefits of the blank sheet of paper approach used in the Customer Value Discovery methodology enables customers to identify what is important from their perspective. Rather, the questions in the workbook aid customer recall about their perceptions of the service in question and their other experiences that shine light on what their perceptions of an excellent service looks like. Further examples of the workbook questions are included in Table 11 (page 74).

Over time, the sequence of the questions in the workbook has been revised and a series of checklists developed that help the facilitator to prompt the workshop participants with words/services/products to consider when answering the questions in the workbook. The checklists used are industry specific, including one aimed at university libraries, which was been developed over time from discussions with the author. The customer segment information and demographic data elements are loaded into OptionFinder® so that each workshop has its own files that capture the various outputs from the deliberations.

4.3.5.3 Customer Value Discovery Workshop Process

Customer Value Discovery workshops are held for each unique customer segment, so that participants in a workshop all come from the same basic group (e.g. in the case of university libraries, undergraduate students; postgraduate coursework students; postgraduate research students; off-campus students; international students; etc). There are a maximum number of 15 customers at each workshop, not because of audience response technology limitations, but because of the need to maximise effective discussion amongst the participants at various parts of the workshop.

Figures 13 and 14 provide an outline of the basic steps in the Customer Value Discovery workshop process, relating to irritants and value respectively.

Figure 13: Customer Value Discovery Process Map – Identifying Irritants
(Adapted from McKnight & Austin, 2008)

Explanation of Workshop

In silence and individually, participants record responses in their workbook to the facilitator's questions regarding service irritations; repetition in responses is expected.

Participants select the top six Irritants from the responses recorded in their workbook; Each Irritant is recorded onto a separate sticky notepaper.

Each Irritant is scored for: Severity (Scale of 1-9 with Disappointed = 1; Irritated = 3; Angry = 9); and Frequency of Irritation (Scale 0-10) [Quality Function Deployment techniques (Six Sigma, b)]

Sticky Notes are collected. At the Analysis workshop, the Irritants are arranged into thematic sets, using an Affinity Diagram (Six Sigma, a).

There is no discussion of the irritants amongst the workshop participants, but they have had to opportunity to state any adverse perceptions.

Figure 14: Customer Value Discovery Process Map – Identifying Values
(Adapted from McKnight & Austin, 2008)

Facilitator leads a Visioning Exercise to help workshop participants imagine *Excellence*

In silence and individually, participants record responses in their workbook to the facilitator's questions regarding service excellence/customer values; repetition in responses is expected.

Participants select the top six Values from the responses recorded in their workbook; Each Value is recorded onto a separate sticky notepaper.

Each Value is arranged into thematic sets, using an Affinity Diagram (Six Sigma, a); From discussion of the content each Value theme set, the facilitator gains an agreed heading from the customers for the Value. The headings are entered into OptionFinder.

Participants vote for the most important values, using forced-pair comparisons. A Hierarchy of Value is created for the Value set identified by each workshop.

Workshop participants then vote on their perceptions of the current performance of each Value.

Results of the Importance (Hierarchy of Value results) and Current Performance of each Value are discussed, using the voting scatter plots generated. Client staff record insights from the discussion but do not participate in the discussion.

Workshop participants vote on immediate priorities, from their perspective, using coloured dots as currency, on a Value Poster, created from all the Value Headings.

The Hierarchy of Value is presented graphically through the normalising and ranking of the values (as for irritants in a separate exercise), with the highest scoring value (or irritant) rated as 100, and the rest of the value (or irritant) factors then expressed as a percentage of the top scoring Value (or irritant) factor.

During the workshop, a small group of the client's staff (no more than five) participate in the proceedings, but in silence. They vote during the workshop

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as to how they expect the customers to vote, thus generating data that allows for a gap analysis between what the customers value and the customers' perception of performance and the assumptions from the client's staff. This is a defining characteristic of the methodology, and the author attributes the effectiveness of library staff engagement with the analysis and subsequent actions resulting from the research data to the personal involvement of staff in the workshops, and the stories or narratives that result from their participation.

4.3.5.4 Customer Value Discovery Consolidation

All staff observers and managers meet with the facilitators at a consolidation session to review the outputs from each Customer Value Discovery workshop. The headings ascribed to the theme sets of values and irritations from all the sessions, with the underlying customer descriptions used to define these, are consolidated into a single Hierarchy of Value and a single Hierarchy of Irritation. After the workshop the results are entered into Excel for analysis and from which the series of charts are developed to graphically represent the results.

A variety of graphical outputs are produced:
- Hierarchy of Irritation;
- Hierarchy of Irritation – Frequency; Hierarchy of Irritation – Frequency Gaps;
- Hierarchy of Irritation – Pareto Chart; Hierarchy of Values;
- Hierarchy of Values – Gaps; Hierarchy of Values - Performance;
- Hierarchy of Values – Performance Gaps; Hierarchy of Values – Pareto Chart.

An example of a Hierarchy Gap Chart is provided in Figure 15 (page 69) and a Performance Gap Chart is provided in Figure 16 (page 70). A complete set of the consolidated charts for academic staff and undergraduate on-campus students at Nottingham Trent University is in Appendix 4.

Figure 15: Sample Library Hierarchy of Irritants - Gap Chart
Note: Observers = Staff Observers (From McKnight, 2009)

Hierarchy of Irritants - Students - Gaps
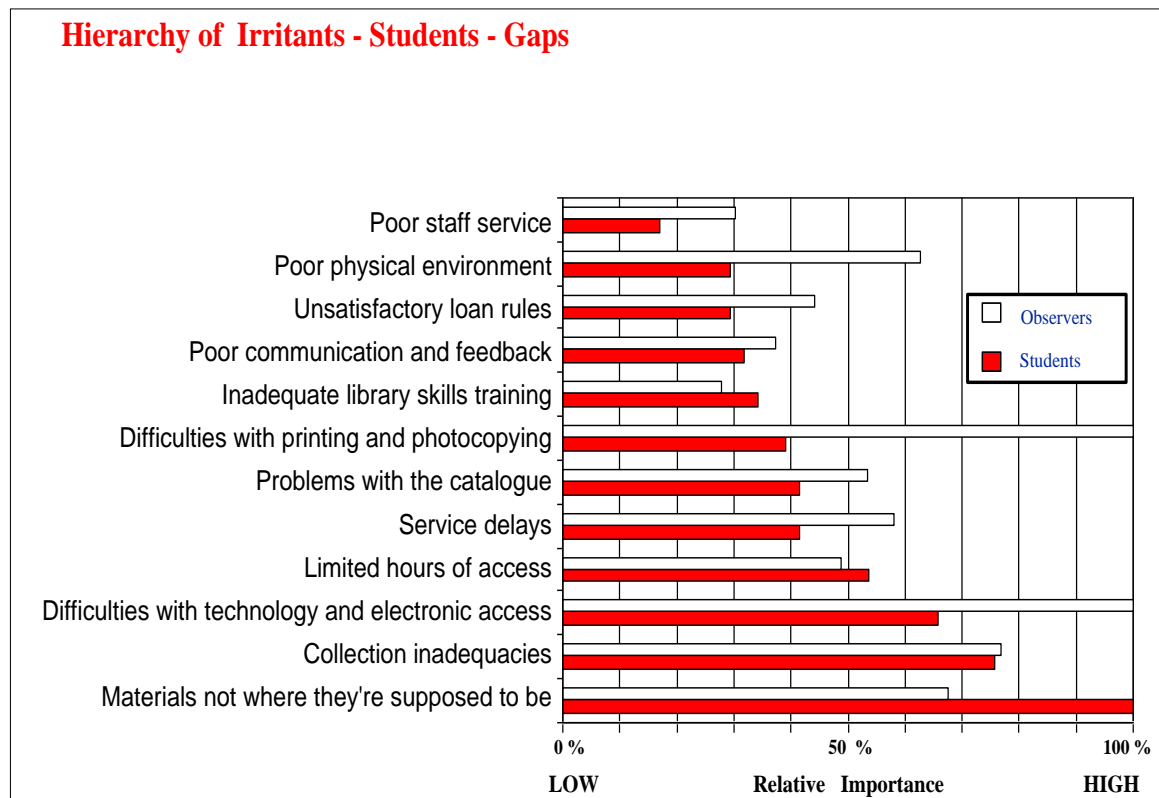
The above example highlights the gap between student and staff observer responses, with students identifying "materials not where they're supposed to be" as the highest ranking irritant, while staff observers assumed that "difficulties with technology and electronic access" and "difficulties with printing and photocopying" would be the highest irritant factors. In the majority of cases, the staff observers over-estimated the relative importance that would be ascribed by the students.

A similar chart is provided in Figure 16 (overleaf), which shows that there was less than 50% satisfaction with the current performance of the highest ranking value factor, in this case "easy access to materials where and when I need them". In the example shown, there was less divergence between the customers' rating of current performance and staff observer assumptions of what they thought the customers would rate current performance.

Figure 16: Sample Library Hierarchy of Value – Performance - Gap Chart
Note: Observers = Staff Observers (From McKnight, 2009)

Overall Hierarchy of Value - Performance - Gaps

Chart categories (top to bottom):
- Services clearly communicated to users
- Managing multi media & curriculum content
- User friendly loans policies & procedures
- Opening hours which meet user needs
- Proactive partnerships b/w Academic staff & Library
- Timely targeted training
- Avail'ity of reliable up to date technologies & facilities
- Good quality cheap photocopying & printing
- Knowledgeable friendly accessible staff who help me
- Comprehensive available relevant resources
- Inspiring environment which supports diverse needs
- Easy access to materials where & when I need them

Legend: Observers, Customers

X-axis: 0 1 2 3 4 5 6 7 8 9 10

POOR   Current Performance   EXCELLENT

This facilitated workshop enables discussion of observations from the different workshops, as different staff usually attend different workshops. The client's staff consider demographic differences, differences in hierarchy (if evident), and start to focus on the 'what next' phase of the research: how to utilise the research data to identify actions that will either remove irritation and/or add value. These discussions help facilitate the narrative, or stories, that are shared with other staff in the organisation describing the experience of the workshops, the customers' comments and potential actions that are required to address service quality issues.

4.3.5.5 Interactive Value Modelling

Value Modelling was added to the process in 2002 as a result of requests from the author to turn the performance on the various value and irritant factors into a satisfaction model that would aid decision-making. Figure 17 (overleaf) is a screen shot of an Interactive Value Modelling dashboard

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showing the representation of the customer-identified irritants and values as separate slider bars on the graphical interface to the software.

Figure 17: Sample Library Service iThink® Dashboard © Enzyme International (Aust.) (From McKnight, 2009)
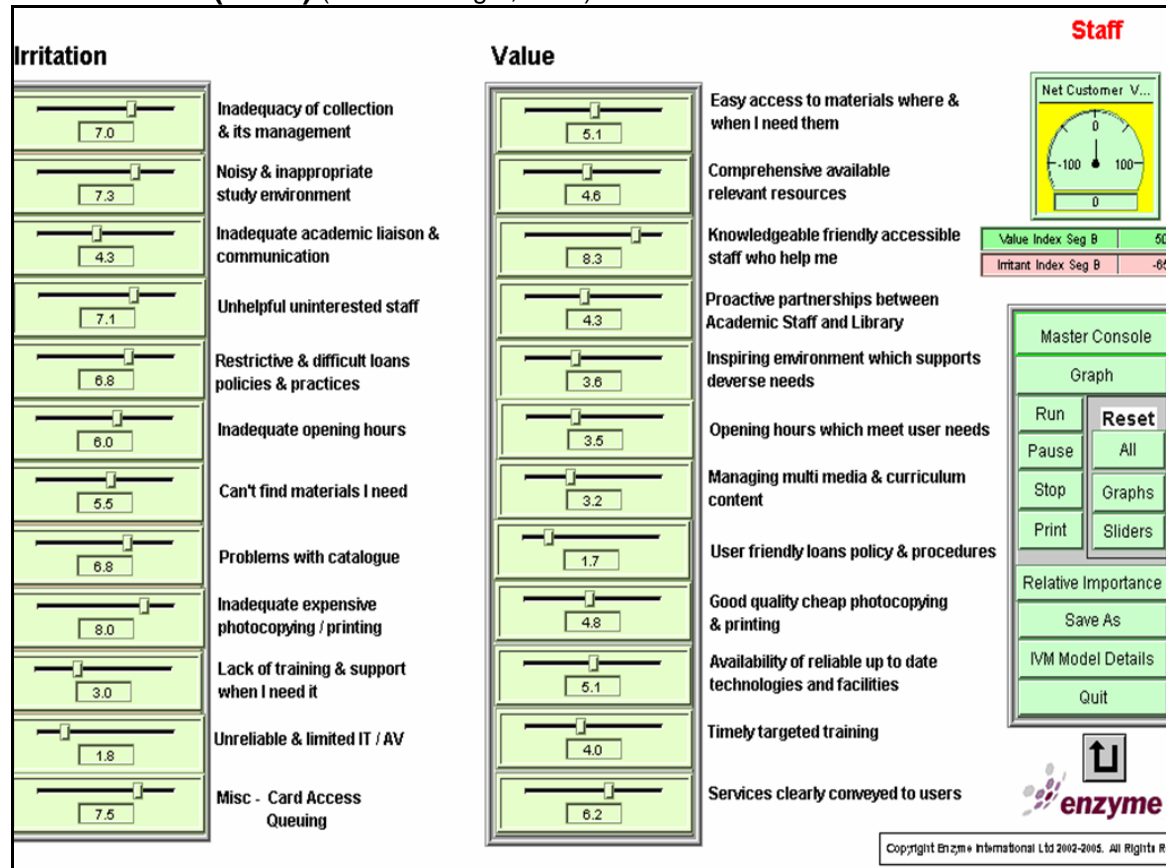
The facilitators build the model prior to the Value Modelling workshop based on the data that was generated at the Consolidation Workshop. Using the slider bars, assumptions are made by the client staff as to their capacity to reduce irritation and add value on the various factors identified by the customers. For example, if additional funds were secured for purchasing electronic information resources (books and journals), the slider bar for the first irritant ("Inadequacy of collection and its management") would be reduced and the slider bars on the value propositions ("Easy access to materials where & when I need them"; and "Comprehensive available relevant resources") would be moved to a higher score. The model would be run to see what the impact of the additional funds would have on customer perceptions of service excellence.

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Figure 18 provides a screen shot of the modelling processes. The model does not give a total level of satisfaction, but shows that in all complex services/products sometimes customers are annoyed (irritated) and sometimes delighted (receiving value). The total value is derived by taking away the irritation factor from the delighted (value) factors. Lam *et al* recognised that satisfaction scores must take into account the sacrifice component (in the Customer Value Discovery methodology, the irritation factors) that a customer has to make (Lam *et al*, 2004).

Figure 18: Sample Library Service iThink® Value Graphs © Enzyme International (Aust.) (From McKnight, 2009)
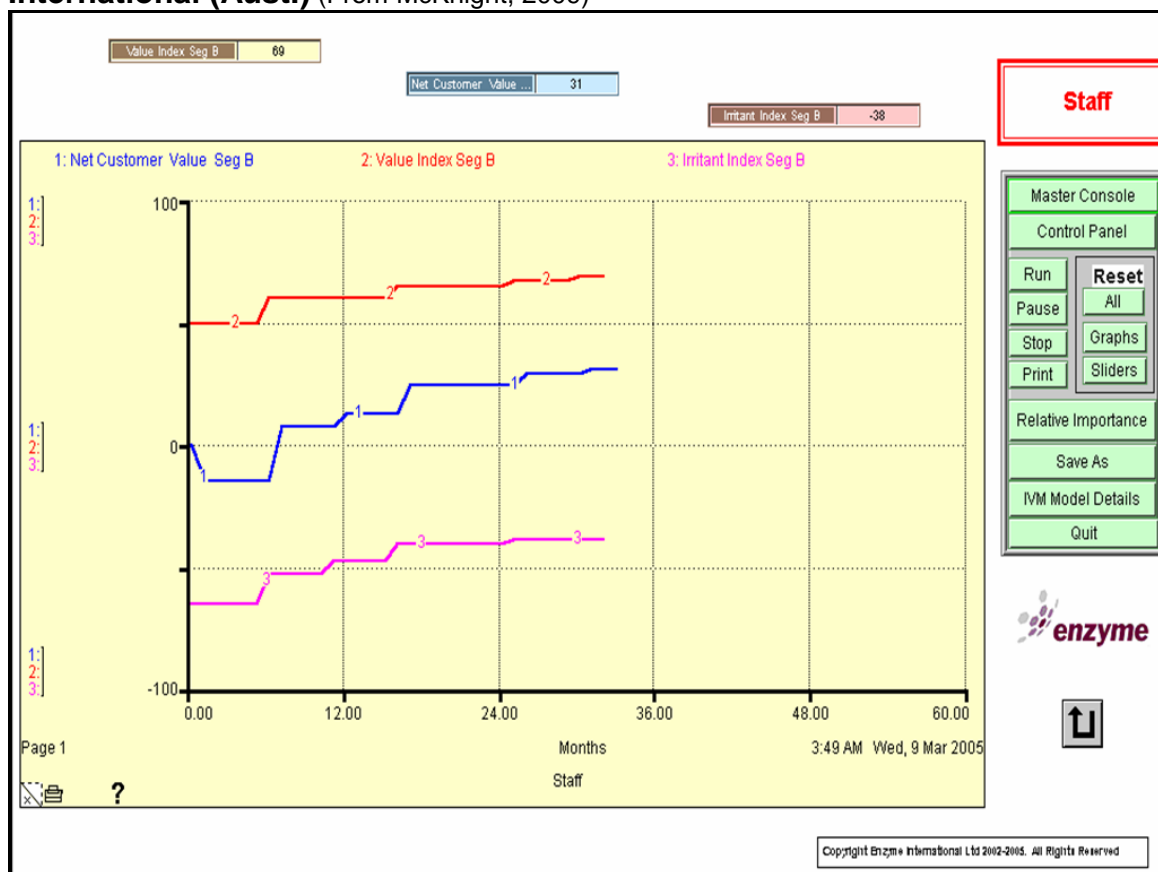
Enzyme International (Aust.) use iThink® software to graphically model the impact of the values and irritations, showing the net value on a single graph. Value runs from the Origin (0) to +100 and Irritation Index runs from the Origin (0) down to -100. The line in the middle is the net value position, calculated by subtracting the irritants (lower line) from the values (upper line). The

various steps in the lines indicate where the value model was adjusted to include the client interventions based on their assumptions on their capacity to reduce irritation and add value. The model is re-run as many times as there are realistic potential interventions. This is a more sophisticated model for predicting customer satisfaction than is possible with a single survey question, such as the Enterprise Service Quality index (ESQi) (Reichheld, 2003).

4.3.6 Comparison of Library Customer Value/Satisfaction/Quality Instruments

A summary comparison of the most commonly used tools, LibQUAL+™ and Rodski Research Group Academic Library Customer Survey, with the Customer Value Discovery methodology is provided in Table 11 (overleaf). The organisational requirements were defined by the author but in the capacity as library director seeking a tool or methodology that would help facilitate change within the service organisation. Both the Rodski and LibQUAL+™ instruments have been used by this author at Deakin University (Rodski) and Nottingham Trent University (LibQUAL+™).

The drawbacks of the Customer Value Discovery methodology relate to cost: cost of the facilitators; and cost of staff time while engaged in the process. The engagement of staff is crucial for the successful implementation of changes that result from the research, so while staff time is spent in customer value discovery workshops, consolidation workshop and interactive value modelling workshops, the participation delivers significant benefit to the organisation, and subsequently to the customers, as a result of their engagement. Academic libraries may not be used to paying for consultant/facilitators to undertake this type of research, rather relying on in-house surveys and focus groups or externally conducted (at a nationally negotiated price) performance measurement exercises, such as LibQUAL+™ and Rodski. However, the cost is offset by the usability of the data and the knowledge that future actions are aimed at those areas that are likely to deliver real benefit (added value and/or reduced irritation) for the customer.

Table 11: Comparison of Library Performance Methodologies against Organisational Requirements

Organisational Requirements (as defined by Deakin University and Nottingham Trent University)	LibQUAL+™	Rodski	Customer Value Discovery
Identified what the customer described as an ideal service, starting with the customer's view	Not explicitly; the customer answers pre-defined questions, but can add comments	Not explicitly; the customer answers pre-defined questions, but can add comments	Yes
Identified existing practices that annoyed and irritated the customer	Not explicitly; the customer answers pre-defined questions, but can add comments	Not explicitly; the customer answers pre-defined questions, but can add comments	Yes
Provided a gap analysis between the current performance and the desired level	Yes	Yes	Yes
Required the active involvement of the client's staff in the discovery process	No	No	Yes
Provided a gap analysis exposing the difference between customer desires and irritations and what the client's staff thought these would be	Partially; gaps are identified from the perspective of the customer only	Partially; gaps are identified from the perspective of the customer only	Yes
Provided simple, easy to read reports that included Hierarchies of Value and Irritation, capturing all the customer feedback in thematic schemes	No – complex	No – complex	Yes
Supported decision-making about actions to take as a result of evidence	No	No	Yes

A major difference between LibQUAL+™, Rodski and the Customer Value Discovery methodology is the participation of client staff as observers in the customer workshops, and in the consolidation and interactive value modelling stages. Customer Value Discovery requires client staff participation throughout the research process, and the experiences of staff impact upon the culture of the entire organisation as the decisions are made and implemented to act upon the research data and analysis. Anecdotally, this appears to be correct (see Neal *et al,* 2009); whether it is the case is the subject of future research.

As already identified, there are criticisms of LibQUAL+™ (and Rodski) related to the difficulty in reading and interpreting the survey data. Given that the aim

of this applied research is to reach practitioners and especially the library organisation's staff, clarity and ease of use is paramount.

The publications, together with this linking chapter, are the prime source of information on the methodology itself, and the outcomes of using the methodology in a not-for-profit, academic library environment.

4.3.7 Key Findings from the Publications Related to Tools and Methodologies for Gauging Customer Perceptions

1.   SERVQUAL and the Kano Model have not been widely used in libraries. The Kano Model is aimed at defining *product*, rather than *service*, quality attributes, so is not well suited to service organisations such as libraries. LibQUAL+™ was adapted from SERVQUAL, as a specialist library quality instrument, to overcome perceived weaknesses of the original instrument in the library context (McKnight, 2008; McKnight & Berrington, 2008).

2.   In comparison with SERVQUAL, LibQUAL+™ and the Kano Model, which use pre-defined questions from the organisation's perspective, the Customer Value Discovery methodology forces use of open ended questions to bring out customers' values (and irritations) (McKnight, 2008; 2009). This is a key point of departure.

3.   The Customer Value Discovery data is easy to interpret when compared to LibQUAL and Rodski reports and thus improves staff engagement with decision-making associated with the research findings (McKnight, 2008; 2009).

4.   The customer values identified through the Customer Value Discovery research in Australia and the United Kingdom identified broadly similar dimensions as those included in the LibQUAL+™ and Rodski instruments. However, customers identify a richer and more future orientated list of

customer values than the checklists of dimensions in 'standard library quality instruments' (McKnight, 2008).

5.   Customers identify service dimensions that may not be readily associated with library and information services, such as being "environmentally responsible" (McKnight, 2008). Through the fact that Customer Value Discovery enables customers to identify their ideals in their own words, they introduce comparisons with services and situations that they have experienced in their 'whole of life', something that service checklist tools will not identify unless a customer adds a comment in a free text field of the survey instrument. As adding comments to surveys is not mandatory, there is a risk of not being offered this information from customers.

6.   Industry tools such as LibQUAL+™ and Rodski enable benchmarking with other organisations that have used the same tool, because of the standard set of dimensions and questions. However, through the Customer Value Discovery research, it is found that customers do not compare one library service with another; they compare the library service with an ideal service that takes into consideration experiences and expectations that they bring from their day-to-day lives (McKnight, 2008).

7.   The client's staff must engage with the Customer Value Discovery process, as this is part of the methodology. This engagement generates greater awareness of the needs expressed by customers which aids in decision-making and implementation after the data gathering. This conclusion is demonstrated in Neal *et al,* who are staff members of Nottingham Trent University Libraries and Learning Resources (Neal *et al*, 2009).

4.4   Management Responsibility for Implementing Change

Zeithaml *et al* described their seminal research as covering three main questions: What is service quality?; What causes service-quality problems?; and What can organisations do to solve these problems and improve service? (Zeithaml *et al*, 1990) The first two questions have been explored in the discussions on customer values and customer satisfaction as these relate to library and information services and the publications in Sections 4.1 and 4.2. This Section explores the final question, 'What can organisations do to solve these problems and improve service?' with a quite specific focus on management responsibility.

A theme that permeates the *published work* has been the need to gather evidence to inform decision-making to improve customer experiences in an academic library and information service environment. An emphasis has been on the organisational perspective and engaging staff, in addition to the customer perspective on values and satisfaction. Some of the publications included in the thesis go further than the Zeithaml *et al* questions on what can be done to solve problems and improve service (Zeithaml *et al*, 1990). The publications *detail* the actual interventions that were taken and the subsequent impact on customer satisfaction as measured by independent student satisfaction surveys (McKnight, 2006b; 2007b; McKnight & Berrington, 2008). The action research incorporates the operationalisation of change that derives from the research data.

Organisational development, or systematic planned change efforts (Beckhard, 1969), is another way of examining the environment that incorporates the leadership and management processes that underpin the *published work*. Organisational development elements include: putting decision-making closer to people doing the work; expressly understanding customer needs and desires; developing shared accountability and responsibility; improving services; making data-based decisions; and having structures, processes and systems that support the organisational vision and goals (Holloway, 2004). These attributes are described in the publications in relation to delivering

systematic and planned change within the two organisations that are the focus of the publications (McKnight, 2000; 2002; 2006b; 2007b; 2009).

Bolman and Deal, over the last 18 years, have been developing a framework, described in *Reframing Organizations*, which highlights the importance of understanding people, politics and the organisational systems, strategies and culture (Bolman & Deal, 1991; 1997; 2003; 2008). They emphasise the individual needs of staff that will influence, if addressed, their behaviour at work. They stress the importance of influencing staff, through structures, policies and systems, through training and support, and through "coalitions of support" (the observers and communicators of symbolism, stories and organisational myths). Also stressed is the importance of leadership in successful change management (Bolman & Deal: 1991; 1997; 2003; 2008). There is a resonance in the publications (McKnight, 2006b; 2006c; 2007b; 2009) with these observations.

Leadership and management action is central to providing an environment in which to work and deliver excellent services (Zeithaml *et al*, 1990; Heskett *et al*, 1997; Cook, 2002). Covey, for instance, describes the differences between transactional and transformational leadership, with the latter transforming individuals as well as practices, which is something that staff engagement with the customer value discovery process hopes to deliver (Covey, 2004); Stephens & Russell describe the need for positive and empowering approaches to leadership and management, and encouraging the concept that all employees should be seen as leaders (Stephens & Russell, 2004). Through the engagement of the client's staff in the customer value discovery and interactive value modelling processes, and subsequent decision-making and implementation, library staff are being encouraged to be leaders.

Leaders and senior managers in an organisation have the capacity to establish a cultural vision that focuses on customer needs and continuous improvement, and also have the responsibilities for managing resources, product/service mix, and the internal processes aimed at gaining customer feedback. The discussion on using the right tool or tools to assist with

establishing a vision and the cultural environment to provide customer focus has been an important part of the knowledge base described in the publications. The tools and methodologies impact on the level of service staff engagement: in data collection; data analysis; and decision-making; and implementation of actions as a result of the data analysis as described in Section 4.3.

The philosophy driving this action research is to provide a customer-focused culture that continuously innovates to add value for customers. The identification of customer values and the measurement of customer satisfaction are only of use if there is action taken as a result of the research, and this is a management responsibility.

4.4.1 Change Management

Throughout the *published work*, as an aid to decision making, customer values and customer irritations have been described. These have guided the development of operational plans that will deliver valued services to customers, using gaps in performance today against an ideal service, and the elimination of irritations, to help inform and prioritise areas for action (McKnight, 2000; 2002; 2006b; 2007b; and McKnight & Berrington, 2008). The aims are to understand and influence customer behaviour and customer choice. As such, these are important factors in helping to define the product or service mix that will establish and maintain 'profitability' for an organisation. This concept sits within a commercial environment or a not-for-profit organisation as both require satisfied customers to be sustainable. It is a management decision, ultimately, as to what the service or product will be and at what level of functionality it will be delivered. However, if service staff can feel part of that decision-making, any changes required are more clearly understood. Therefore, the notion of engaging service staff from across the organisation to help identify and prioritise possible actions arising from the customer value workshops has been argued as a factor in the success of the interventions put in place.

The selection of the Customer Value Discovery methodology for use in the two library services was predicated on the need to engage staff in the research process *and* in the implementation process (McKnight, 2007b; 2009). Other authors have emphasized the importance of staff engagement to deliver services desired and required by customers (Lele & Sheth, 1991; Bolman & Deal, 1991; 1997; 2003; 2008). This resonates with the theme that permeates the publications in this thesis, which relates to actively engaging staff in the process of hearing and understanding customer needs to help develop a deeper culture of customer focus in a service organisation (McKnight, 2006b; 2006c; 2007b; 2009).

Schneider & Bowen highlight the human dimension in understanding customers (Schneider & Bowen, 1999); Bolman & Deal highlight the human dimension in understanding the staff delivering the customer service (Bolman & Deal, 1991; 1997; 2003; 2008). This sentiment can equally apply to the experience of service staff who engage in the Customer Value Discovery workshops, in that they listen to customers, vote as they anticipate customers will vote in relation to importance and performance of values, and experience the human emotions associated with hearing positive and negative feedback; and from having their own judgments challenged by the observer/customer gap analysis. The Customer Value Discovery methodology requires this human interface with the organisation's staff and, through the process, engenders a greater commitment to the delivery of customer values and reduction of irritations that are identified in the course of the workshops.

The importance of leadership and the role of the leader in establishing and articulating a vision for an organisation permeates the management literature and has already been highlighted. "The role of library directors is to set a vision, based on knowing where a service ought to be heading, and then let staff make the vision become a reality" (McKnight, 2007b, p.23). The publications describe situations where the library director is instrumental in using a methodology that will enhance staff engagement in the process of identifying customer values (McKnight, 2007b; 2009). But it is the aspirational nature of the customer values that drives the vision - to deliver value to the

customers and to reduce irritation – rather than a leadership-created vision for the organisation.

As important is the attitude of the organisation's staff to decision-making related to implementation. Staff who have engaged with the Customer Value Discovery workshops are defining, and are responsible for, the actions taken to deliver the vision, rather than feeling imposed upon by management (McKnight, 2002; 2006a; 2006c; 2007a; 2009). The Interactive Value Modelling stage of the Customer Value Discovery process is a unique feature of the methodology as already mentioned. The engagement of service staff in this process is a key part of ensuring that action will be taken post the feedback gathering exercise, as staff who identify potential actions and then watch the model predict the potential impact on customer satisfaction are more likely to implement the required changes. The process is similar to what Woodruff & Gardial call 'actionability criterion' (Woodruff & Gardial, 1996, p.318). They argue that there is no point measuring customer satisfaction if there is nothing that will or can be done to change the delivery of that value proposition. They recommend that managers should scan a list of customer value propositions and imagine actions they would take in response to various satisfaction results (Woodruff & Gardial, 1996). This is very similar to the staff suggestions for interventions in the "Interactive Value Modelling" workshop used in the Customer Value Discovery process.

Using the Balanced Scorecard framework (Kaplan & Norton, 1996), the "*Customer Perspective"* has been used to articulate the goals regarding delivery on the value propositions identified by customers. The publications outlined the development in the description of these goals since 1999, with a greater degree of clarity and specificity being used to articulate the goals. For example:
- (McKnight, 2000) describes the "Library User Value Statements" that derive from the customer values;

- (McKnight, 2002) introduces the Balanced Scorecard as the framework formally used to track performance against the goals developed from the customer value discovery workshops.

Later publications, such as (McKnight, 2006c; 2008; and McKnight & Berrington, 2008), describe the use of the customer values to drive operational planning and goals within operational plans without explicitly stating that the Balanced Scorecard framework was used to track actions. Using a framework to describe the goals is important as it enables the clear articulation of what is going to be done to achieve the vision and identifies who is responsible and when the actions are to be delivered. As indicated previously, it is the clear definition of customer values and shared language between customers and service providers that enables service staff to understand what has to be delivered and why, and to understand what changes may be required to fulfill the expectations of customers. From McKnight & Berrington, the following accentuates the importance of identifying customer values (to inform the vision) and providing an operational planning framework in which to monitor action (McKnight & Berrington, 2008):

> *"If you're going to get everyone in the organisation to concentrate on delivering customer value, you've got to give them a concrete model of what that value is, as defined by the customers themselves. It's not enough to ask employees to smile and be nice. You need to give them a workable definition of the value they're expected to deliver, and then help them learn and use the critical work practices that deliver the value" (Austin quoted in Albrecht, 2000, p. 91).*

In the overarching context of continual improvement, managers have to guard against assumptions that, because the service was rated highly today, it will be highly rated in the following years. Kano *et al*, Schneider & Bowen and others have identified the concepts of customer 'delight' (and 'outrage') as well as the notion of 'core' or 'basic' services (Kano *et al*, 1984; Schneider & Bowen, 1999). As already discussed, expectations of service excellence will change over time, with what were once considered as unexpected or 'delight' factors becoming the expected and 'basic' service. Therefore, constantly delivering what customers expect as basic or expected services, together with

some innovation is required to maintain relevance. The Customer Value Discovery methodology provides an advantage to management as achieving the identified customer values define the vision for the service (an excellence to be strived for in the future) that can be acted upon in an operational planning framework.

Linked to the concept of continual improvement, two publications identify the human experiences of what has been described by many as 'success breeds success' (McKnight, 2002; 2007b). When staff have been engaged in the Customer Value Discovery process, involved in decision-making around the interventions that arise from the analysis of the workshop data, and then see an improvement in customer satisfaction that can be linked to their interventions, they gain increased satisfaction themselves and strive even further to enhance the customer experience. Heskett *et al* describe the 'service profit chain' that links profit and growth to customer loyalty; customer loyalty to customer satisfaction; customer satisfaction to service value; service value to employee productivity; employee productivity to employee loyalty; employee loyalty to employee satisfaction; employee satisfaction to internal quality of work life (Heskett *et al,* 1997).

The 'service profit chain' is yet to be formally tested in the two library services that are the subject of this thesis, and there is a recommendation for future research around staff morale and the link to excellent customer service (Heskett *et al,* 1997). However, there is indicative evidence that staff morale and performance has improved: at Nottingham Trent University, Libraries and Learning Resources was accredited with the U.K. Cabinet Office Customer Service Excellence award in 2009. A demonstration of a sustained culture of customer focus and excellent service delivery based on customer needs is required for this award, which implies a committed staff.

An important factor in creating a customer focused environment is communication back to customers, using their terminology, about what actions have been taken as a result of their feedback. A communication strategy that encompassed a poster campaign, using a 'you asked for… and

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we responded by…' approach was described in one of the publications (McKnight & Berrington, 2008). In addition, library staff team meetings and monthly managers' forums discuss progress on actions identified in operational plans aimed at delivering customer values, providing opportunities for staff engagement and communication about the developments underway. Nottingham Trent University Libraries and Learning Resources (LLR) Annual Reports from 2004- have included the LLR operational plan and actions (see Appendix 1 of each report at:

http://www.ntu.ac.uk/llr/about_us/strategies_policies_reports/index.html).
These communications not only provide feedback to customers and stakeholders, but also help to promote engagement of LLR staff in delivering on the operational plan objectives, which have been informed by customer values and irritations. The importance of stories within an organization has ben highlighted, with authors arguing that narratives within an organisational culture help to shape culture and actions (Bolman & Deal, 1991; 1997; 2003; 2008; Brophy, 2004; Prusak, 2005). The communication strategies regarding the outcomes of the Customer Value Discovery research help create and reinforce the customer focused culture. Having the operational plans and actions publicly available help reinforce the importance of delivering on the objectives.

4.4.2 Key Findings from the Publications Related to Change Management

1.   The publications confirmed the importance of models such as the International Standards Organisation's (ISO, 2009) and Woodruff & Gardial (Woodruff & Gardial, 2006, p.14) that emphasise the importance of understanding customer values, implementing change as a result of knowing the customer values, then measuring customer satisfaction to see if interventions have been successful (McKnight, 2007b; McKnight & Berrington, 2008).

2.   The tools and methodologies described in this thesis, and used to inform customer values and customer satisfaction, require different levels of

staff engagement in the measurement process. The Customer Value Discovery methodology required active participation of staff observers in the customer workshops. Staff also make suggestions for interventions in the interactive value modelling process. This level of staff engagement helps support the change processes that result from these measurements (McKnight & Berrington, 2008; McKnight, 2009).

3.   A gap in the library science professional literature has been filled by detailing the interventions that were made in response to reducing customer irritation and adding value for customers (McKnight, 2006c; 2007b; and McKnight & Berrington, 2008).

4.   Communication strategies are important regarding changes that are implemented as a result of gaining customer feedback, both for providing evidence to customers that their perspectives were listened to and acted upon; and also for reinforcing the importance of continual improvement strategies for staff (McKnight, 2006b; 2007b; and McKnight & Berrington, 2008).

5.   Change is not a "one-off" exercise. Customer values change over time so leadership is important in reinforcing a culture of continual improvement to services (McKnight, 2002; 2007b; 2009).

6.   There is a need for further research to confirm whether 'success breeds success' and whether there is a positive impact on staff morale of increasing customer satisfaction ratings and the attainment of awards such as the Customer Service Excellence award.

5.0 Chronological Development of the Publications

The following provides an overview of the background to each publication and a summary of the major findings. To demonstrate the systematic development of the research and maturing of reflective practice, the publications have been listed in chronological order of publication.

5.1 Year 2000 - Value not Virtual: One Library's Response to the Virtual Campus,

This paper (McKnight, 2000) was first presented at the International Association of Technical University Libraries (IATUL) conference in Brisbane, Australia, and then published in a double-blind peer reviewed journal. It describes the management approach used to make decisions regarding the use of technology in delivering library services. The theme of the conference was virtual library services, so the title of the presentation and subsequent paper were aimed at emphasising that, while technology may be new, exciting and important, it was incumbent on management to make sure that the services facilitated by the technology were aimed at delivering what was required by the customers, not necessarily following the latest fad.

Guiding management philosophies were espoused: a strong customer focus aimed at delivering what customers need; students have the right to expect access to the full range of library services regardless of mode of study (on-campus, off-campus, part time, full time); and off-campus students should not be charged extra for services deemed as basic to their studies. To fulfil these philosophical principles, it was acknowledged that regular feedback from library customers was required, and the process used to gain the feedback was Customer Value Discovery workshops.

The importance of this publication to the thesis lies in its detailed descriptions of the "Library User Value Statements" – based on the identified customer values – that were established and used for some years as service charters for Deakin University Library. Library User Value Statements were created for every market segment researched: Undergraduate on-campus students; Off-

campus students; Researchers (postgraduate research students and research only staff); academic staff; and University stakeholders. The Library User Value Statements are reproduced below in Table 12 (overleaf). The descriptions in the Library User Value Statements reflected the actual words used and emphasis placed by the customers, thus personalising the charters.

Table 12:   Students' Library User Value Statements (From McKnight, 2000)

<table>
<tr><td>

STUDENTS – to help you learn, we will strive to provide

Resources
- enough copies of textbooks
- access to high demand material
- a range of electronic resources

Staff
- who are well trained and knowledgeable
- who offer friendly, helpful service

Easy Access
- via a catalogue which is comprehensive and reliable
- to materials on the shelves
- which is convenient and equitable

Environment
- which is comfortable and conducive to

</td><td>

OFF CAMPUS STUDENTS – to help you learn, we will strive to provide

Resources
- enough copies of textbooks
- access to high demand material
- a range of electronic resources

Staff
- who are well trained and knowledgeable
- who offer friendly, helpful service

Access & Delivery
- which is convenient to you
- which is fast, reliable and responsive
- which is equitable to all users

</td></tr>
</table>

<table>
<tr><td>

RESEARCHERS – to meet your research needs, we will strive to provide

- up to date, comprehensive resources, relevant to the University's research strengths
- reliable, convenient, flexible access to information
- skilled staff to assist with your information research
- information services tailored to your needs

</td><td>

STAFF – to meet your information needs, we will provide

- up to date, extensive, relevant resources
- reliable, convenient, flexible access to information
- skilled proactive staff to assist you
- an environment conducive to learning

</td><td>

EXECUTIVE – to meet the University's evolving needs, we will

- align our services and resources to your needs
- constantly update the skills and knowledge of our staff
- lead and innovate in information service delivery
- provide up to date and extensive information resources
- use the best available technologies
- seek beneficial strategic alliances and cooperative ventures
- strengthen the University's reputation through participation in global information sharing initiatives

</td></tr>
</table>

The main conclusions drawn in this paper are that:

Different customer segments, although they identify similar values, refer to these values differently. In a customer focused organisation, it is appropriate to reflect these different nuances back to the customer, and not present

Service Charters in management language. The Customer Value Discovery research enables this personalisation of service expectations, as the customers describe the values in their own terms, not library or other consultancy jargon; and the importance of research, *per se*, into delivering library services.

At the time of presentation and publication, LibQUAL+™ had not been developed; and SERVQUAL had not been used in Australian academic libraries as a means of identifying service quality. So the research that identified different customer values, based on different customer segments, was a unique approach borrowed from the corporate sector and identified new knowledge for the library and information sector.

The publication identified that the value statements are a device to focus activity and resources in the directions that *do* add value for the library's customers. "This is why this paper is titled "Value not Virtual". Without understanding the needs of users, without understanding what helps and hinders access to services, a service provider can be seduced by technology to deliver services that are, perhaps, gee whiz, but that do not serve in the best interests of the consumers of the service" (McKnight, 2000, p.15).

Already, the research reflected in this publication had identified the importance of performance standards and targets in a library context that were later emphasised by Poll, Brophy and Matthews (Poll, 2001; Brophy, 2006; Matthews, 2007). It also identified that the different customer segments, while having similar values, placed different emphasis on aspects of service, requiring the service provider to modify the service and also modify the communication about the service to meet the needs of the different customer groups. Finally, the publication acknowledged the need for staff training and developing the skills of staff to meet the changing needs of customers. "The Library does not pretend to know what the user needs, and by asking the user and then delivering the services, the Library's reputation is constantly enhanced. This helps to retain and motivate library staff who want to work in

an environment that values its staff and provides rewards and recognition for excellent service" (McKnight, 2000, p.14-15).

5.2 Year 2002 - Managing cultural change: the challenge of merging library services, curriculum development and academic professional development

This is a peer reviewed paper that was written for presentation at the 2002 International Federation of Library Associations and Institutions' annual conference in Glasgow. Subsequently, it was one of only a handful of papers nominated and peer reviewed for inclusion in the conference issue of the *IFLA Journal.*

The publication outlines a number of processes that were implemented at Deakin University to gain significant and sustained cultural change amongst staff in a blended organisation, comprising the university library service, the curriculum design and development functions and those of academic staff development. The author was responsible for facilitating, and then managing, the merger of three distinct organisational groups (the Library, Teaching and Learning Support Unit, and Learning Resources). This merger was driven by a top down directive from the university executive and caused a degree of angst amongst staff. To help overcome the barriers to the merger, the author instigated Customer Value Discovery workshops to identify 'customer value packages' that would provide the focus for action in the new blended organisation, named Learning Services. In addition to ascertaining customer values and irritations, the management team used strategic planning and performance tracking based on objectives that deliver customer value, and the identification of shared staff values that guide behaviour within Learning Services and with customers.

The publication outlined the perspectives in the Learning Services Balanced Scorecard, many of which reflect the actions required to add value and reduce irritations identified by customers (see Table 13 overleaf).

Table 13: Learning Services Balanced Scorecard (From McKnight, 2002)

Customer Perspective

C1.   Satisfy our customers

Contribute to the success of our customers and continually improve customer satisfaction by focused delivery of the selected value models, i.e. what they believe is important.

C2.   Be First to mind

Develop our reputation and profile such that Learning Services is first to mind for assistance in teaching and learning within Deakin.

We are the acknowledged leader, the provider of choice. Customers associate our products and services with excellence.

Customers know, understand, value and use our services and resources.

C3.   Extend our reach

Increase the numbers of people and levels of interaction with our services and resources.

Expertise, resources and systems of Learning Services underpin the University's knowledge management initiatives and strategic priorities.

Internal Processes Perspective

I1.   Dramatically improve core processes

Dramatically improve the efficiency and effectiveness of core processes which deliver customer value packages.

Dramatically reduce the end-to-end time of key core processes.

I2.   Continually improve productivity

Strive to improve productivity to achieve savings that can be applied to further enhance our productivity.

Learning & Growth Perspective

L1.   Invest in people

Invest in selecting, retaining and developing our people in a supportive and innovative work environment, where they are recognised and rewarded for excellence.

L2.   Strategy driven technology

Exploit new and existing technologies to maximise

productivity and value.

L3.   Living our values

Demonstrate commitment to our purpose and values through our daily behaviours, policies and practices.

Financial Perspective

F1.   Maximize asset utilization

Continually seek ways to maximise the use of our assets and resources to deliver greater value to our customers and the University and minimise unproductive overheads.

F2.   Develop beneficial partnerships

Maintain and seek beneficial partnerships that enhance our services and resources.

F3.   Drive change and decision-making

Play a key role in the success of the University's planning and decision-making.

Ensure University decisions and directions are influenced by Learning Services' vision and requirements.

Ensure that sufficient funds are allocated to support our strategic priorities.

The Balanced Scorecard approach of reflecting customer values was aimed at an internal staff audience, with the operational plans of the different teams in Learning Services being developed to achieve these goals. This contrasts to the 'Library User Value Statements' described in McKnight (2000) that used the values defined by customers to establish a service charter.

The publication included a section titled "Change to What? Understanding Customer Needs". It explains the importance of managerial responsibility with regard to planning services and resources. "By understanding the environment in which we work, by understanding the values of our customers, by identifying new or changed services that would help deliver greater value for our customers and reduce their irritation level, we can develop a plan for action" (McKnight, 2002, p.268). The paper also listed 'Library Value Factors' and 'Teaching and Learning Support Unit/Learning Resources Value Factors' (see Table 14).

Table 14: Value Factors for Learning Services, Deakin University (From McKnight, 2002)

Library Value Factors	Teaching and Learning Support Unit (TLSU)/Learning Resources (LR) Value Factors
Relevant, current, accessible book collection	Up to date practical, education advice and support
Easy access to more online Library resources	Timely responsive service
Sufficient copies of key texts	Working together
Approachable, knowledgeable, competent staff	Adequate appropriately managed resources
Access to and availability of journals	Focus on quality and improvement
Affordable, flexible and reliable photocopying and printing	Training and Professional development responds to my needs
Reliable, up to date IT computer support	Flexible service delivery
Timely access to Library staff and online help	Friendly competent co-operative staff
Environment conducive to study	Commitment to facilitation of on-line delivery
Adequate opening hours	Knowledge of and access to staff and services
Library skills training to find information	
Clear signage	

The author identified that "involving staff in this customer research, by seeking their analysis of the research findings on what adds value for the customer, by their participation in teams established to define what change is required within the organisation to deliver the customer value package, we create an internal environment that is not only ready for change, but which is driving the change from the ground up, rather than imposed from management above. In this way, there is a much greater chance of staff "buy-in" and the change process is much more likely to be successful and sustaining" (McKnight, 2002, p.268). These observations are consistent with the theoretical framework for reframing organisations espoused by Bolman & Deal (Bolman & Deal, 1991; 1997; 2003; 2008).

The paper goes on to discuss the importance of involving teams of staff to analyse customer value feedback results and to identify action plans. The reflections in the paper acknowledge the importance of facilitating cultural change to make sure that customers are at the forefront of the service; and that the changes implemented are based on values identified by customers, not staff assumptions of customer needs.

McKnight demonstrates the implementation of decisions that are directly associated with the Customer Value Discovery research (McKnight, 2000; 2002). It is applied research with an action-orientated focus (Revans, 1983) to improve customer experiences of academic library services. The two papers place the research into a management framework of cultural change and staff buy-in to gain maximum benefit for customers. A unique feature of the Customer Value Discovery methodology emphasised throughout the papers is the *active* engagement of library staff in the process and in the decision-making following the Customer Value Discovery workshops. This engagement not only creates a greater chance for buy-in to any changes that may follow as a result of the research findings but, as importantly, it creates a narrative that is passed on from individual to individual as they retell the story of the experiences of listening to customers describe their experience (Bolman & Deal: 1991; 1997; 2003; 2008; Brophy, 2007; Brown *et al*, 2005).

5.3 Year 2006 - Customers Value Research

This paper is included in the edited proceedings of an international conference held in Norway on 'Management, Marketing and Promotion of Library Services Based on Statistics, Analyses and Evaluation'. All papers presented at the conference were peer reviewed. The theme of the conference demonstrated the importance of using evidence as the basis for making decisions in a library context.

The paper (McKnight, 2006b, p.206) explains the benefit of conducting Customer Value Discovery workshops to aid library management decision-making:

- Customers matter – libraries are service organisations and should understand and respond to customer needs
- Library staff make assumptions about what customers require, and these assumptions are not always accurate
- If library management does not know where to put resources (staff and funds), the result can be a waste of time and effort without adding any value to the customer's experience
- Acting upon the feedback from customers can be a powerful tool in achieving cultural change within an organisation, to make it more customer focused and responsive
- Monitoring the action plans that are developed in response to customer feedback enables performance monitoring and encourages a culture of continuous quality improvement.

The Customer Value Discovery methodology is described in some detail for the first time, closing the feedback loop in Boyer's framework of scholarship. The publication highlights the engagement of staff in the workshops and in the interactive value modelling exercises. As well as identifying the gaps between customers' perceptions of excellence and current service performance, the

importance of identifying the gaps between customers' perceptions of performance and those of staff were highlighted as a means of challenging library staff to be engaged in follow-up actions to deliver value and reduce irritation.

The publication goes on to identify the immediate steps taken to add value and reduce irritation, thus emphasizing the importance of acting upon the research findings.

In addition, the publication identifies that there is a commonality between customer values as identified by academic library customers (academic staff and undergraduate students) in the Australian and UK university library services researched. It found that there were differences in emphasis between the needs of academic staff and student, as evidenced by the different weightings for similar value factors, and by the inclusion of different value factors for each segment. However, the overall results are very similar, pointing to the ability to generalise the results and approach, at least in a western context.

The research methodologies included: Content (data and textual) analysis; modelling and simulation; case studies; and narrative research.

The main conclusions identified in the paper were that value factors of academic library customers were similar regardless of which country (Australia or England) they come from. The main variations that do occur were in the Irritant factors. These reflected issues with local aspects of the library service that annoy or frustrate customers, but even with these, there are common themes.

In keeping with the theme of the conference, acting upon evidence to inform decision-making was highlighted. The publication includes a list of steps taken to improve value and reduce irritation in response to the research data. (McKnight, 2006b, p.215). The importance of active engagement of library staff in the workshops and subsequent decision-making was also reinforced.

5.4 Year 2006 - Involving the Customer in Library Planning and Decision-Making

This publication is the published version of a keynote address at the premier international distance education library conference series 'Libraries Without Walls', which is organised by the Centre for Research in Library and Information Management at Manchester Metropolitan University. The conference addresses library services to customers that are not necessarily accessing the physical library. The theme for the 2005 conference was 'evaluating the distributed delivery of library services'. As a keynote presentation, it was aimed at practitioners and is intended to be accessible and descriptive, as well as challenging the assumptions of those attending the conference and those who may read the conference proceedings.

The Customer Value Discovery process is described, albeit briefly. The publication describes the place of research, in this case Customer Value Discovery, squarely in the context of organisational culture and the importance of using data to gain staff buy-in if effective interventions are to be delivered to improve customer satisfaction. The focus is similar to that of Bolman and Deal (Bolman & Deal, 1991; 1997; 2003; 2008). The fact it was the keynote address highlights the topical nature of the Customer Value Discovery methodology in the library and information service sector.

The research methodologies described include: focus groups; scenario planning; modelling and simulations; content (data and textual) analysis; action and narrative research involving monitoring and re-planning.

The conclusions in the paper include and draw upon results identified in previous publications. The paper re-emphasises the importance of active engagement of library staff in listening to and understanding the values of customers. It highlights the need for implementation strategies, not simply ascertaining what is important to customers. The paper also accentuates that different customer groups have different values (off-campus students value

different aspects of library services when compared to on-campus students, for instance).

A new management observation identified in this paper is the fact that Customer Value Discovery is about *this* library service and cannot be used for benchmarking, per se. It raises a challenge about the role of benchmarking as what is "best practice" in one context may be "worst" in another. Benchmarking that involves comparing *this* library service with another library service may not deliver the required interventions for *this* library's customers, as customers are not only comparing library services with other library services, but with all their experiences of customer service. Comparisons with library benchmarking partners, alone, may not identify service improvements deemed necessary by customers.

The publications represented in McKnight (2006b; 2006c) were the first since the author had moved from Australia to the United Kingdom. The inclusion of the papers in two international conferences highlighted the interest that was gathering related to the Customer Value Discovery methodology. While the papers provided the opportunity for longitudinal and comparative research between the research data gathered at the two university libraries, the papers were descriptive case studies. However, this interest helped to focus the author on more detailed analysis of the research data and its implications for library management. The following papers demonstrate a more mature reflection on the data and the literature in the field that informed the observations.

5.5 Year 2007 - Acquisition and Cataloguing Processes: Changes as a result of Customer Value Discovery

This double-blind peer reviewed paper provides a detailed explication of the impact of Customer Value Discovery research on particular aspects of library operations. The paper was developed from a presentation to an international conference on library acquisitions held at Cambridge University. It is inwardly, rather than customer, focused in its emphasis and draws upon the innovations

that were implemented at Deakin University and Nottingham Trent University to 'back-of-house' services to improve customer satisfaction. It has a companion paper (McKnight & Berrington, 2008) that concentrated on the outward facing library services from a customer perspective.

The publication is unusual in that it defines a series of library technical services-type interventions and innovations that were implemented in response to the analysis of the Customer Value Discovery research data. Library literature tends to focus on customer service interventions rather than cataloguing and acquisitions processes (technical services/backroom processes). McKnight (2007) emphasises that library management must consider both backroom processes and front-of-house services, when considering resource allocation and changes in service to deliver value to customers.

The publication cites the longitudinal evidence of the improvement in customer satisfaction, measured by an independent Nottingham Trent University student satisfaction survey, which could be directly linked to the actions resulting from the Customer Value Discovery research in 2005. It draws further supporting evidence from an external satisfaction survey showing the improvement in the three library-related questions in the Higher Education Funding Council of England (HEFCE) National Survey of Students from 2006 to 2007.

Earlier research at Deakin University had shown improvement in customer value, as measured by the reduction in the gap between current performances compared to desired performance in subsequent Customer Value Discovery research related to the same value with the same customer segment. The library had been using Customer Value Discovery to inform planning and decision making from 1999 to 2004. The Deakin University Library Annual Report (2004, p.4) highlighted the following, which was not included in this paper:

The Library received excellent results from formal surveys conducted in 2004:

CAUL/Rodski Library Customer Satisfaction survey October 2004) - 80% customer satisfaction – highest in national database - with Library staff performance ranked highest; overall customer satisfaction improved by 3% points on 2002 survey 77% in 2002 to 80% in 2004); no gaps between importance and performance were over the factor of 2.

This publication represents evidence-based library and information practice 'at work'; applying research data to library decision-making. The research methodologies used include: focus groups/workshops for data collection; use of primary and secondary data sources; case studies; scenario planning, modelling and simulation; content (textual and data) analysis; and narrative research. The conclusions in this publication were fourfold:

Firstly, it supported previous findings that there were links between some values and irritations (expressed as the opposite state). Secondly, it was demonstrated that changes can be required in the 'back room' of the service provider if value adding services are to be implemented. This could include resource re-prioritisation away from back-of-house services to allow additional expenditure on customer facing services; or remedying technical services problems that impact on customer perceptions of service excellence. From a customer perspective, they see the library as a single organisation and not separate parts, so technical services units cannot be separate organisational silos and need to be working together with front-of-library services to deliver a seamless, value-added service.

Thirdly, the links between Customer Value Discovery, scenario planning and Interactive Value Modelling to inform action, implementation of the initiatives and the improvement of customer satisfaction were demonstrated. Library staff can hypothesize on service interventions and the likely outcome on customer perceptions of service excellence to make informed decisions.

Finally, the very important factor of staff engagement was again highlighted. Without the implementation of actions that derive from customer perception

research, whether it is Customer Value Discovery or customer satisfaction surveys, there will be no benefit to the customer.

5.6   Year 2008 - Are there common academic library customer values?

This double-blind peer reviewed research publication specifically seeks to provide answers to the following questions: Is there a correlation between what library customers value and the questions asked in benchmarking satisfaction surveys? Is there a core set of academic library customer values? Are there differences between what academic library customers value in Australia when compared to their counterparts in England? Do library customer values change over time?

The results of two similar university libraries' Customer Value Discovery workshops are compared to each other, and also to the sets of questions in the LibQUAL+™ survey. As the Customer Value Discovery research was undertaken six years apart, the results were compared to see if there has been a change in customer values over time.

The publication identified that academic library customers identified a core set of values, and that these values mapped reasonably well to the dimensions in the LibQUAL+™ instrument. However, there were unique value factors identified by the various customer segments that did not map. Questions in LibQUAL+™ were more detailed in their exploration of library staff attributes than customers identified in their value proposition related to staff. It was also noted that customers identify their values without reference to library jargon.

The research methodologies in this publication included: Content (data and textual) analysis; secondary research data (headings and questions in the LibQUAL+™ survey); and case studies.

The findings of the publication provided new knowledge for the library professional literature. It was found that core values are the same, regardless

of the continent (Australia or the United Kingdom) (see Figures 6 on page 35 and 19 overleaf), but found that time changes the expression of values.

Benchmarking instruments, like LibQUAL+™, produce results that have similarity and also differences to the results of Customer Value Discovery research, so the methodologies are not interchangeable but complementary. The LibQUAL+™ results allow comparison with other library services that use the survey tool in the same year, while the Customer Value Discovery methodology provides greater detail about specific customer values and irritations, from their perspective, which aids decision-making. An important finding was that library customers compare excellence in service delivery with *all* their personal experiences, not just with other library services. Traditional library benchmarking and performance measurement tools do not account for this phenomenon, rather comparing services with like library services.

Figure 19: Comparison of University Library Value Factors – England
(From McKnight, 2008)

Comparison of University Library Value Factors – England

Managing multi-media & curriculum content

Proactive partnership between academic staff & library

Services clearly communicated to users

Opening Hours that meet user needs

User friendly loans policies & procedures

Timely targeted training

Availablity of reliable up-to-date technologies & facilities, incl catalogue

Good quality cheap photocpying & printing

Knowledgable friendly accessible staff who help me

Comprehensive Available relevant resources

Inspiring Environment supporting diverse needs

Easy Access to materials where & when I need them

Percentage

■ English Students ■ English Academics

Since publishing this paper, the Association of College & Research Libraries published its 2007 Environment Scan. "Environmentally friendly library services" was identified as an emergent issue (Association of College & Research Libraries, 2008, p.7). The Australian customers identified 'environmentally friendly library services' in 1999 as a value and the English customers were silent on this matter in 2005. The Customer Value Discover methodology enables the customer to identify 'success' and 'excellence' without having to reflect on the library services with which they are familiar. The methodology also enables customers to define their values based on all their experiences, not just those of library services, identifying issues not covered in LibQUAL-type performance measurement/satisfaction surveys.

The research described in McKnight & Berrington (2008) identifies a common set of core library services in Australia and the United Kingdom, which are fundamental to an academic library service. This could be expected given the cultural heritage shared by both England and Australia (Hofstede, 1983; Hampden-Turner & Trompenaars, 2000). Calvert also suggests that there may be a global set of customer expectations that can be used to measure academic library service quality (Calvert, 2001). His research demonstrated that cultural issues were not significant in a comparison of higher education library groups in New Zealand and China.

The systematic research demonstrated in the publication is evidence of the maturing of the author, ensuring that data are presented to back up assertions and reflections. The comparisons presented between LibQUAL+™ and Customer Value Discovery results provide new evidence to support the basic value propositions espoused by LibQUAL+™.

5.7 Year 2008 - Improving Customer Satisfaction: Changes as a Result of Customer Value Discovery

The publication is double-blind peer reviewed and describes the impact of the research on the whole of the library service at Nottingham Trent University. The author was responsible for all but the tables contained in the paper. These were compiled by Mike Berrington, the Deputy University Librarian (Customer Services).

The Customer Value Discovery research was conducted in February-March 2005 and a Nottingham Trent University Student Satisfaction Survey was conducted in May 2005, providing the baseline data for student satisfaction with library services. The University's Student Satisfaction Survey was repeated in 2007. Therefore, it was possible to compare the results from the two student satisfaction surveys and draw conclusions as to the effectiveness of the interventions that were put in place aimed at reducing irritation and to add value. Changes in student satisfaction were mapped to specific actions taken as a result of the Customer Value Discovery research. Student

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comments were analysed to see if there was a relationship between the implementation of the library interventions and increased student satisfaction.

This publication has further demonstrated the value of the Customer Value Discovery methodology as this is the first time that action initiatives arising from the research have been directly associated with improved perceptions of customer satisfaction.

The publication provides tables of Consolidated Values and Irritants, thus demonstrating the link between the value and the negatively expressed irritant(s) associated with the value. Actions implemented in response to the values and irritations are detailed.

This publication, along with McKnight (2007b) demonstrates the link between the Customer Value Discovery research, the mapping of resources to enable a suite of interventions to be implemented as a result of the research, and the improving customer satisfaction ratings that ensue. The paper states a primary objective of the research was to establish what 'Gold Standard', (a platform in the Nottingham Trent University Strategic Plan 2004-2010) (2004), looked like from a library customer perspective. A further objective was to improve customer satisfaction, a link that is well reported in the publications in this thesis.

The explicit link between specific values and irritants is demonstrated; with an action that reduces irritation also adding value from the customers' perspective.

The research methodologies described in this publication included: workshops of customers (similar to focus groups for data collection; comparison of primary and secondary data sources); survey data, data and textual analysis and comparisons; scenario planning, modelling and simulation; and case studies.

A major conclusion of this publication is that customer satisfaction is increased by focusing actions and services on adding value and reducing irritation. A second conclusion builds on previous reflections and states that, to provide a customer centred service staff need to be provided with a concrete definition of what *value* is from the customers' perspective. It cannot be assumed that library staff *know* what is valued. Thirdly, aligning library staff personal planning objectives to the attainment of operational plan objectives, which are defined using the customers' values, aids implementation and change management. Finally, it finds that "value targeting" (Albrecht, 2006, p.26) is a helpful concept in resource allocation.

McKnight & Berrington (2008) focus on student satisfaction ratings as no comparable independent academic staff satisfaction instrument is available. Future research could include measurement of academic staff perceptions of satisfaction with library services to see if there is a commensurate improvement in perceptions of excellence.

This publication makes a valuable contribution on a number of counts. It provides a summary on the methodology; it describes how management decision-making can be enhanced by focusing on customer feedback; and the increase in perceptions of customer satisfaction is linked to interventions arising from the analysis of the research data. Additionally, this is the first paper that discusses internal interventions as a result of customer perceptions with independently administered student satisfaction surveys, in this case Nottingham Trent University's student satisfaction survey and the United Kingdom National Survey of Students.

5.8 Year 2009 – Bridging the Gap between Service Provision and Customer Expectations

This double-blind peer reviewed paper was written based on a keynote presentation to the 5th International Conference on Evidence-Based Library and Information Practice held in Stockholm, Sweden, in July 2009. The content of the publication is influenced by the developing themes and

background research that were emerging from this linking chapter. As such, it demonstrates maturation as a scholar as well as experience as a librarian.

The publication is an extended annotated bibliography of what is important about all the other publications and the action research that these papers described. The overarching driver for the thesis, as represented through the *published work*, is to improve customer services, thus bridging the gap between what is provided today and what is considered as an excellent service from the customers' perspectives.

A reminder is provided to library leaders and managers that they must understand their customers, from the customers' perspective, and not make assumptions about customer needs. A key message is that library staff do make assumptions and that the research indicates that there can be a significant gap between what staff assumed and reality from the customers' perspective.

The publication describes the Customer Value Discovery methodology and provides a comparison with the LibQUAL+™ and Rodski Research Group's survey methodologies, highlighting the different approaches adopted: letting the customers describe their desires and experiences in their own terms compared to customers completing an industry-specific survey instrument.

The engagement of staff in the discovery process and in the decision-making related to interventions required to reduce customer irritation and add value is highlighted. This was regarded as a key attribute of successful change management, with interventions that staff could see were linked to an increase in customer satisfaction.

6.0   Scholarly Value of Customer Value Discovery Research

Boyer advocated the dissemination of research results to a wide audience encompassing researchers and practitioners (Boyer, 1990). The following identifies the impact, thus far, of this research and the publications on the library and information community.

6.1   Citations of Publications

At the time of submission, the author has identified that three of the publications included in this thesis have been cited by others.

6.1.1 "Managing Cultural Change: The Challenge of Merging Library Services, Curriculum Development and Academic Professional Development" (McKnight, 2002)

"Managing Cultural Change: The Challenge of Merging Library Services, Curriculum Development and Academic Professional Development" has been cited seven times: two journal articles; two conference publications; one Doctor of Education thesis; and two PhD theses.

"Establishing Online Quality" cites this paper in relation to developing new organisational structures to support innovative learning and teaching practices (Epps & Stacey, 2003, p.292). They emphasised the importance of effective communication and collaboration based on understanding academic staff needs. The paper cited defined academic staff values for both library services and for support for online teaching.

"Organisational Development, Leadership, Change and the Future of Libraries" discusses the actual and potential use of organisational development theory and practices in libraries (Stephens & Russell, 2004, p.246). They say "An increasing number of useful writings have emerged in the journal literature that treat the general issues of library change. Recent works offer the library context in the discussion of organisational change while remaining limited to specific outcomes or organisational areas (McKnight, 2002; Mosenkis, 2002).

"Developing Models of Professional Competence to enhance Employability in the Network" explores conceptual frameworks and practical tools for enhancing the role of information professionals in multi-disciplinary organisational environments (Corrall, 2005, p.2). She cites this paper (McKnight , 2002) as 'a real-world example of multidisciplinary and multi-professional convergence …' thus providing additional models for exploring organisational change.

 "More Than the Sum of Its Parts – A University for Cumbria" reflects on the process of mergers from the perspective of one service department, Learning and Information Services, and discusses the various integration projects and the impact on staff during the many changes (Weaver, 2008, p.84). It benchmarks lessons learned against a similar library case study (McKnight, 2002), of which, Weaver states, are few in the literature. The article poses questions about the role of culture in the change process.

An Analysis of the Use of Virtual Communities of Practice in Managing Knowledge for Professional Development by Oberlin Group Librarians included (McKnight, 2002) as a citation in a literature review on "visioning, planning, strategic thinking, and change management skills" (Guthro, 2004, p.40).

Les norms de qualitat ISO 9000 a les Biblioteques d'institucions d'educació superior provides an investigation on the use of ISO 9000 in academic libraries (Mola, N.B., 2006, p.153). The thesis examines libraries by country and, in the Australian section, cites (McKnight ,2002) in relation to a review of quality assurance at Deakin University Library. The thesis also highlights *Best Practice Handbook for Australian University Libraries,* (Wilson and Pitman, 2000) which includes the Customer Value Discovery research undertaken by the author while University Librarian at Deakin University Library.

Kultura Organizacyjna Sluzb Informacyjnych Bibliotek Akademickich – Na Przykladzie Uczelni Ekonomocznych cites the author's paper but a translation

of the work has not been undertaken, so the context of the reference has not been established (Jaskowska, B., 2007, p.17).

6.1.2 "Acquisition and Cataloguing Processes: Changes as a Result of Customer Value Discovery" (McKnight, 2007b)

"Acquisition and Cataloguing Processes: Changes as a Result of Customer Value Discovery" has been cited twice.

In "In Search of the Mythical 'Typical Library User'", Booth notes that the research undertaken at Nottingham Trent University by (McKnight , 2007b) "has revealed significant gaps in library staff perceptions of user needs" (Booth, 2008, p.235). Booth's publication draws on (McKnight, 2007b) and (McKnight & Berrington, 2008) as evidence that library staff under-estimated the impact and frequency of irritants and failed to predict some of these irritants, which supports the observation in this thesis that it is unwise to rely on staff assumptions of knowledge of customer needs; it is much better to ask the customer directly.

"Bringing Public Services Experience to Technical Services: Improvements in Practice" paraphrases from (McKnight, 2007b, p23) in its literature review explaining that all library professionals, regardless of position or function in a service, must work together to deliver what customers need: "user interactions, either with a librarian, a resource (e.g., book), or a service (e.g. Web page) can either be a good experience or a bad experience and it is our goal as librarians to consistently deliver a good experience for every service we offer Van Duinkerken, 2009, p.52)."

6.1.3 "Improving Customer Satisfaction: Changes as a Result of Customer Value Discovery" (McKnight & Berrington, 2008)

"Improving Customer Satisfaction: Changes as a Result of Customer Value Discovery" has been cited three times. Booth in "In Search of the Mythical 'Typical Library User'" in his conclusion notes that the research undertaken at Nottingham Trent University "has revealed significant gaps in library staff

perceptions of user needs" (Booth, 2008, p.235). While Booth uses both (McKnight, 2007b) and (McKnight & Berrington, 2008) to support his notion that there is no 'typical' library customer, he concludes with a quote "fuzzy questions tend to lead to fuzzy answers" from (Oxman & Guyatt, 1988, p.699). This reinforces the importance of the Customer Value Discovery methodology, which enables customers to state what they want to convey, in their own language and identifying their own priorities, rather than relying of survey instruments with pre-defined questions that management deem important.

In the SCONUL trade journal, "It's All Up for Grabs: Developing a New Role for the Academic Liaison Team at NTU" publicly tell the story of acting upon customer-determined values at Nottingham Trent University (Neal, Parsonage and Shaw, 2009). The authors cite (McKnight & Berrington, 2008) in identifying the catalyst to developing new roles for academic liaison librarians based on the evidence derived from the Customer Value Discovery research in 2005. Neal *et al* draws on a specific academic staff value proposition, 'proactive partnership' between librarians and academic colleagues, as the major focus for the new team (Neal *et al,* 2009, p.4). This publication is evidence of the engagement of library staff at Nottingham Trent University with the research data, and serves as an example of how the narrative is important to managing change. Only one of the paper's authors (Neal) was employed at the time of the customer value discovery workshops. Regardless, the two other authors join with Neal to describe the initiatives implemented as a result of identifying customer values at Nottingham Trent University. The 'story' that develops about what customers describe as excellent is what is important; not the actual scores on current performance.

Law, in a chapter focusing on understanding the needs of the digital natives (young people who have grown up with the Internet) and how changing customer needs will impact on future academic library services says: "Good practice exists in pockets in this (citing McKnight & Berrington, 2008) as in everything described above (Law, 2010). We must discover what our

customers want and then build on that, rather than attempting to lead them towards a future which they find irrelevant."

6.2   Keynote and other Presentations as an Indication of Esteem

Journal publications are not the sole way of disseminating research findings. In the library and information sector, just as in the wider academic sphere, conferences are an important vehicle for disseminating applied research findings to practitioners. The role of professional associations is also important in dissemination of best practice, especially at the regional and specialist group level, where the audience tends to be younger librarians who may not be able to attend international or national conferences. For these reasons, Table 15 notes the presentations where Customer Value Discovery research and its practical applications have been disseminated.

Table 15: Presentations that Highlight Customer Value Discovery Research

Title	Status	Date and Location	Organisation
Bridging the gap between service provision and customer expectations	Keynote	29 June-3 July 2009, Stockholm, Sweden	5th Evidence Based Library and Information Practice Conference,
Librarians and Academics - Partners in Learning and Teaching'	Invited	3 March 2009, Hong Kong	Hong Kong Polytechnic University Library
Librarians, Libraries and the University	Keynote	4-7 November 2008, Cadiz, Spain.	Rebiun Annual Conference of Spanish Academic Library Network and Spanish Conference of University Vice-Chancellors
Customer Expectations	Invited	16 May 2008, London, UK	House of Commons Library
Tomorrow's Libraries - Creating the Future	Keynote	15 May 2008, Southampton, UK	Joint Sirsi/Dynix User Conference
The Importance of Listening to Customers	Guest Speaker	4 October 2007, Nottingham, UK	Libraries and Information East Midlands Annual General Meeting
Using Customer Value Research for Service Enhancement	Invited	4 June, 2007, Milton Keynes, UK	Open University Library Seminar Programme
Improving customer value: changes in business processes as a result of customer feedback and innovative use of technology	Invited	19-20 April 2007, Cambridge, UK	YBP& Blackwells Exploring Acquisitions Conference
Customer Value Research	Invited	2-4 Nov 2006, Grasmere, Cumbria, UK	CILIP. Publicity and Public Relations Group Annual Conference
Customer Value Research	Peer Reviewed	9-11 August 2005, Bergen, Norway	IFLA Management & Marketing Conference
The Changing Nature of Academic Libraries	Keynote	24 November 2005, Aston University, Birmingham, UK	CILIP University College and Research Group Seminar on Academic Library Futures: Perspectives on tomorrow
Involving the customer in library planning and decision-making	Keynote	16-20 September 2005, Lesvos, Greece	Libraries without Walls 6: Evaluating the distributed delivery of library services,
Changing the mindset – From Traditional On-campus and Distance Education to Online Teaching & Learning	Keynote	22 September 2003, Surfers Paradise, Australia	Australasian WebCT User Conference
Managing Cultural Change: the challenge of merging library services, curriculum development and academic professional development	Peer Reviewed	20 August, 2002, Glasgow, Scotland	IFLA Council and General Conference
Value not Virtual	Peer Reviewed	3-7 July, 2000, Brisbane, Australia	IATUL Annual Conference

6.3   Guest Lectures

The author has been invited to present guest lectures on "Customer Value Discovery Research" to the Masters of Science (Library and Information Science) students in the Research Methods Module at Loughborough University, Loughborough on: 28 January 2009; 23 January 2008; 29 January 2007; and 23 January 2006.

6.4   Other Related Publications

Three other publications that report on the use of the Customer Value Discovery research have been published by the author but are not included in the body of *published work* for this thesis. These are:

McKnight S. & Livingston, H. (2003) So What do Customer Value Propositions and Strategic Planning have to do with Learning and Teaching?, *Educause in Australasia 2003 Conference, Expanding the Learning Community, Meeting the Challenges*, EDUCAUSE IN AUSTRALIASIA 2003 Program Committee, University of Adelaide, Adelaide, South Australia. pp. 799-810.

McKnight, S. (2006a) Changing the Mindset: From Traditional On-campus and Distance Education to Online Teaching and Learning", *eLearning and Digital Publishing*, pp. 45-67, ed. Hsianghoo Steve Ching, Paul W.T. Poon, and Carmel McNaught, Springer, Dordecht, The Netherlands.

McKnight, S. (2007a) The Expatriate Library Director, *Library Management*, Vol.28, No.4-5, pp.231-241.

In addition, McKnight (2008) "Are There Common Academic Library Customer Values" has been listed on the LibQUAL website (See Attachment 1) adding to the body of literature reporting on LibQUAL and other service quality and customer satisfaction methodologies.

7.0   Summary of Contributions

There are five major contributions of the published work and the linking chapter to the body of professional knowledge. The research questions are answered below:

Q.1: Can a set of core academic library customer values be defined and, if so, what are these?

The research and publications identify and demonstrate that there is a set core values. The values identified by customers through the Customer Value Discovery process were similar, but not identical to, the service dimensions included in library benchmarking instruments LibQUAL+™ and Rodski Research Group survey. Library customers were found to compare library services with their experiences of non-library services when defining excellence (value), so unique value propositions were discovered by this research methodology.

The specific core values, as described by academic staff and undergraduate students are detailed in Figure 6 (page 35) and Figure 19 (page 102), and consolidated tables are included in McKnight (2008). Further, McKnight & Berrington (2008) provide detailed descriptions of irritants and core values.

Core values were identified and these were ranked in a hierarchy of importance. The hierarchy of importance and the gap analysis between service excellence and current performance are important tools to focus actions to add value and reduce the gap between performance and desired expectations of performance. By focusing on factors that are of high importance and low performance, interventions to add value and reduce irritation would add significantly to the customers' perception of excellence, as demonstrated in the interactive value modelling.

The research has identified that academic library customer values have a common theme in both Australia and the United Kingdom. Although the

customer values are common to the two library services investigated, different customer segments can describe a common value in different ways, reflecting the different nuances from the customers' perspectives.

An additional finding from analysis of the research data identified that customers often express irritants as the opposite of the value identified. The consolidated tables included in McKnight (2008) demonstrate the common values, with the corresponding description of the opposite irritant, together with the few local irritants and values that were identified by the two libraries' customers.

There were three irritants (as identified in Figure 9 on page 39) that represented local issues. Two of these local irritants represented basic hygiene factors (noisy environment; don't like queuing) as described by Herzberg that were not being met (Herzberg, 1974). The other local irritant (don't like access card policies) coincided with the introduction of swipe cards access to library buildings. As the access policy has been extended to other buildings since 2005, library customers will be familiar with the need to carry their swipe card. Therefore, this local irritant is not expected to be identified in the 2009 customer value re-measure identified in Section 8.1.

The interpretation and reflections on the research data indicate the connectedness of customer values and customer satisfaction. Customers have multiple values, some more important than others, and the perception of satisfaction relies on three factors: delivering the basic, expected services in a consistent manner; delivering unexpected services that delight the customer; and minimising the potential for irritation in all transactions.

Q.2: What is the impact on customer satisfaction if changes are made to services and resources to reduce irritation and add value in response to the results of Customer Value Discovery research?

The thesis confirms that improving services by increasing value and decreasing irritation has a positive impact on the perception of customers for expressing satisfaction with library services. As already indicated, it is found

that irritations are often expressed as the opposite to customer values. Focusing on removing irritations, and consistently delivering the expected/core/basic services, goes a long way towards increasing customers' perceptions of excellence. This is similar to meeting Herzberg's hygiene factors (Herzberg, 1974). Focusing on highly rated values that have a significant gap between performance and expectation will help to increase customer satisfaction. However, it is not sufficient to protect customers from annoyances (Gavin, 1987); the data suggests that there also has to be focus on delivering the delighters on the Hierarchy of Value.

The Interactive Value Modelling process was added to the Customer Value Discovery methodology at the author's request in 2002 to help gauge the impact of interventions on customer satisfaction. This process has been described in a number of the publications (McKnight: 2006b; 2006c; 2009) and Figure 17 (page 71) and Figure 18 (page 72) provide visual representations of the modelling software. Figure 18 plots the impact of interventions, identified by staff on the basis of the Customer Value Discovery data, on overall customer satisfaction. Removing or reducing an irritant, if it has a matching value proposition, is likely to deliver an increased sense of satisfaction for the customer.

In addition to the Interactive Value Modelling, a longitudinal study of student satisfaction undertaken at Nottingham Trent University indicates an increase in satisfaction during the period 2005 to 2009. While the two satisfaction instruments used are not directly comparable (the internal Nottingham Trent University survey is much more detailed with regard to satisfaction with library services than the National Student Survey undertaken on behalf of the HEFCE), both indicate an upwards trend in student satisfaction. There is a link between the deliberate interventions enacted by library management to reduce irritations and add value and the increase in student satisfaction. Table 16 (overleaf) provides the detailed results of the 2005 and 2007 student satisfaction surveys at Nottingham Trent University as an example. This conclusion will be further tested in 2010 when the more detailed student satisfaction survey is conducted again at Nottingham Trent University.

Table 16: 2005-2007 Nottingham Trent University Library Student Satisfaction Survey Comparison (From McKnight & Berrington, 2008)

Survey Area	2005 % satisfied	2007 % satisfied	% Change
Library website	73%	81%	+8%
Opening hours	70%	76%	+6%
Helpful and accessible staff	67%	74%	+7%
Access to printers/ photocopiers	55%	73%	+18%
Availability of study places	64%	73%	+9%
Availability of e-journals and databases	66%	70%	+4%
Range of e-journals and database	61%	69%	+8%
Range of books	61%	65%	+4%
Range of printed journals	61%	64%	+3%
Availability of PCs in libraries	48%	63%	+15%
Noise levels	52%	62%	+10%
Training and support for students in using library facilities	57%	61%	+4%
Availability of books and materials from reading list	47%	53%	+6%
Loan periods	52%	57%	+5%

Q.3: Does the Customer Value Discovery research data aid management decision-making and action over and above customer satisfaction survey results?

The publications and the linking chapter both provide positive answers to this research question. The customer values provide an operational framework for future action, with a view to reducing customer irritation and adding value. By focusing on the value propositions, effort is targeted at those services and resources that will really make a difference to a customer's perception of excellence. The publications identify the importance of library staff engagement in the Customer Value Discovery process and the subsequent decision-making and implementation of actions that arise from the analysis of the research data. This engagement helps to generate buy-in for the changes required and helps foster a narrative or story within the library service. The Customer Value Discovery methodology provides a gap analysis between staff and customer perceptions that reinforces the need to really understand what the customer wants and to not make assumptions.

The linking chapter provides evidence of research that explains why customer satisfaction, alone, cannot be relied upon to indicate customer loyalty.

Woodruff & Gardial, for example, state that "customer satisfaction measures, by themselves, are incapable of fully addressing customer value issues" (Woodruff & Gardial, 1996, p.53). The linking chapter also explains the difference between values, as aspirations for service, and satisfaction, which is a report card on current performance. Both data elements are required to enhance decision-making, but customer satisfaction alone is not appropriate.

Q.4: How does the Customer Value Discovery methodology compare to other tools used in academic library services to ascertain service quality and customer satisfaction?

The publications provide comparisons with the most widely used quality service instruments LibQUAL+™ and Rodski Research Group survey) and conclude that the former methodology has benefits, particularly in relation to interpretation of data and staff engagement. Table 11 (on page 74) provides details of this comparison.

The publications and the linking chapter have identified academic customer library values from the customers' perspectives, not from the perspective of the service provider's as evidenced in the SERVQUAL and LibQUAL+ literature. The Hierarchies of Value and Irritation, from the customers' perspectives, provide detailed insight into the perceptions of customers and demonstrate that, if given a blank sheet of paper, customers can articulate what they envisage as the criteria that constitute an excellent library service using comparisons of experiences in their whole life, not just previously experienced library services. This ensures that customers have a voice and can describe their notions of excellence rather than answering pre-determined questions that "management" deem important.

The linking chapter and publications also provide evidence of potential problems associated with traditional survey instruments, such as LibQUAL+™ and the Rodski Research Group survey, in that these instruments may not ask the questions that are important to customers, and may not induce customers to provide descriptions of non-library services that they would like considered when management design an excellent library service.

Contribution five (5) is the detailed description and discussion on the Customer Value Discovery methodology, placing this information in the public domain.

8.0 Future Research

A number of research activities have been identified as a result of the research to date. These are described below.

8.1 Re-measure of Nottingham Trent University Library Customer Values

The Customer Value Discovery research is scheduled to be repeated later in 2009 with Nottingham Trent University's Libraries and Learning Resources using a web-based instrument based on the customer values (and irritants) identified in the 2005 workshops. This way the questions asked of library customers will reflect previous customers' values and not library management's perceptions of what should be asked.

As library staff will not be actively engaged with the web survey, but will be involved in the interactive value modelling process, it will provide an opportunity for reflection on the importance of staff observing the customer workshops. This research will identify if there are new customer values and irritants compared to the 2005 data. The results will also be used to inform operational planning for the coming years.

8.2 Further Analysis of Customer Value Discovery data, LibQUAL+™ data and the Nottingham Trent University Student Satisfaction Survey 2010

In 2010, Nottingham Trent University will be undertaking another Student Satisfaction Survey. The results of this survey will enable a continuation of the longitudinal comparison of customer satisfaction results against interventions detailed in the Libraries and Learning Resources operational plans that have been developed in response to the values and irritants identified in the 2005 (and 2009) Customer Value Discovery workshops and the 2007 LibQUAL+™ findings.

8.3 Perceptions of LLR Staff towards Customer Service Excellence, Operational Planning and Customer Satisfaction

Authors have identified the influence of staff attitudes, attributes and behaviours on overall customer satisfaction (Heskett *et al*, 1997; Heskett *et al*, 2003; McGregor, 2005). This thesis has provided assertions and surrogate evidence of cultural change amongst library staff and linked these changes to active engagement with the Customer Value Discovery process and subsequent decision-making and implementation of actions deriving from the decision-making. A future research project should explore if the links in the 'service profit chain' between staff satisfaction, organisational development activities and improving customer satisfaction can be explicitly made.

9.0   Conclusion

The action and applied research described in this thesis constitutes a positive response to the observation of Morris and Barron:

> *Consultation enables library management to determine what library users really want thus ensuring comprehensive service provision and effective service delivery. It is one thing to acknowledge the importance of user consultation but quite another to operationalise the concept by reshaping service policies, procedures and attitudes* (Morris and Barron, 1998, p.414).

The thesis also represents a new body of knowledge that sheds light on a methodology used in commercial sectors that would otherwise be invisible. This is assumed because of the reticence of Customer Value Discovery clients to share their research findings beyond their corporate boundaries, for fear of embarrassment or of loss of competitive advantage deriving from the implementation of actions arising from the research findings.

In addition, a gap in the professional literature has been filled by detailing interventions that were made in response to customer values and customer irritations. The majority of the professional library literature has, previously, focused on the scores attained for service quality or customer satisfaction. The publications provide case studies of actual interventions taken in response to the scores and feedback obtained.

This thesis by *published work* serves as an example of action research and evidence based library practice. It reflects the scholarly framework of Boyer in that it reaches a mixed audience of researchers and practitioners. The citations already identified to the papers included in this thesis provide evidence of the perceived usefulness of the research and its dissemination to date (Boyer, 1990).

Most importantly, however, is that the customers of two academic library and information services benefited from research aimed at understanding their needs and perceptions. In 1992, Albrecht said that understanding customer

value was "the only thing that matters" and he described "customer value packages" (Albrecht, 1992, p.7). The *published work* has defined customer value packages for two customer segments in academic libraries, and by understanding these values, management and staff implemented actions to deliver the value identified, and in so doing, improving customer satisfaction.

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Reproduction of the Publications included in this Thesis

Paper 1

S. McKnight, 2000

Value not Virtual – One Library's Response to the Virtual Campus
New Review of Information Networking, pp. 3-16

The purpose statement of Deakin University Library is "We help people learn." This applies equally to on or off-campus students, which has meant that the Library has strived to provide innovative resources and services to break down the barriers of geography and time experienced by our remote students. With the advances in information and communication technologies, Deakin University Library has been able to capitalise on these developments to deliver electronic services to both on and off-campus students, thus complementing the valuable services provided by the Library team. While the services provided through the virtual or digital library are a great leap forward, providing access to a wide range of resources and services 24 hours per day x 7 days per week, these services must be seen in conjunction with the professional assistance provided by librarians. Deakin University Library's success is in its customer focus and the value added digital services available through the virtual campus.

Deakin University – in context

Deakin University was created in 1977, as a regional Victorian university based in Geelong, Australia and it has been serving off-campus students since its inception. Today, it has six campuses: three in Melbourne, two in Geelong, and one in Warrnambool. There is 350 km between the furthest campuses and it still retains its regional roots despite the strong presence in Melbourne since the merger with Victoria College.

Deakin University has developed an outstanding reputation for providing tertiary opportunities for students who, for a variety of reasons, do not wish to study in an on-campus mode. In 2000, 15,600 students, of a total population of 28,000, study in a flexible or off-campus mode. Deakin has been named "University of the Year" twice, in 1995 and again in 1999. The 1995 award was for Deakin's innovative use of information technology to support undergraduate teaching programs. The Library was highlighted in the citation as an excellent service provider, especially in regard to the services to off-campus students. The 1999 award recognised Deakin's productive

partnerships with corporations, government departments and professional associations, providing life-long learning opportunities to employees and members. The 40,000 students involved in these partnerships all study remotely from the traditional university campus.

Deakin University's first Vice-Chancellor stated, "University policy is to minimize the differences between on-campus and off-campus students. However, we did not adapt on-campus courses for off-campus use. On the contrary, we proceeded the other way round." (Jevons, 1982) This ethos has filtered throughout the University, particularly to the Library, which endeavours to provide inclusive services, where at all possible, so any student or academic staff member, regardless of location or disability, can access the wealth of information available from the Library. Thus services developed to solve access and equity issues associated with off-campus students are mainstreamed for all students and staff of the University.

The Guiding Philosophies of Deakin University Library

All library services are based on three basic philosophies that make Deakin University Library very distinctive. It has a strong user focus. The overarching purpose of the Library is summed up in its motto "We help people learn." If a policy or procedure detracts from a student's ability to learn, changes are made. If a user need can be fulfilled in a more effective way, new or modified services are implemented, depending if funds are available, of course.

Another guiding principle is the concept that students have rights. Translated into the Library's services, all students, regardless of mode of study (on-campus or off-campus), have the right to expect a similar level of library service and support. Therefore, the Library aims to ensure that remote students have similar opportunities to ask reference inquiries, borrow books, obtain journal articles, and receive information literacy training so as to undertake independent research as do on-campus students. Deakin University Library has been servicing "virtual" students since 1977, long

before the concept of the virtual campus was envisaged with the help of technology.

The final philosophy is that students should not be "taxed" for being good library users. This is particularly important for off-campus students who are not charged the direct cost of postage or courier services used to deliver loans of books or photocopies. Off-campus students have enough barriers to tertiary education to overcome without being penalised for being avid readers or diligent students. The cost incurred by remote students in accessing library services are kept to the forefront, with web page design, for example, taking into account bandwidth considerations and software and hardware standards.

Library User Value Statements

Deakin University Library has an enviable reputation for providing services to remote (and virtual) students. One reason that the Library retains this reputation is that it seeks regular feedback from library users on the services they require. Inside the University, the Library enjoys the position of the most valued service provider within the university community, based on regular surveys of staff and students. These accolades do not come by accident. Regular, formal workshops with users and stakeholders, facilitated by external consultants, provide the input to developing the Library's strategic and operational plans. These plans result in the delivery of the services identified by users, so that the Library can "help people learn".

As a result of the feedback over a period of two years, the Library developed "Library User Value Statements", which articulate those services of the Library that really add value to the customer's experience. Five value statements were prepared reflecting the needs of the multiple market segments and stakeholders that a university library serves. The statements refer to students, off-campus students, researchers, staff and the University executive and can be found at http://www.dealin.edu.au/library/luvs.html as well as on printed Library brochures and service guides. The statements address the

group concerned and are written in a style that emphasises the strong customer focus of the library.

STUDENTS – to help you learn, we will strive to provide

Resources
- enough copies of textbooks
- access to high demand material
- a range of electronic resources

Staff
- who are well trained and knowledgeable
- who offer friendly, helpful service

Easy Access
- via a catalogue which is comprehensive and reliable
- to materials on the shelves
- which is convenient and equitable

Environment
- which is comfortable and conducive to study
- which has enough furniture and equipment

OFF CAMPUS STUDENTS – to help you learn, we will strive to provide

Resources
- enough copies of textbooks
- access to high demand material
- a range of electronic resources

Staff
- who are well trained and knowledgeable
- who offer friendly, helpful service

Access & Delivery
- which is convenient to you
- which is fast, reliable and responsive
- which is equitable to all users

RESEARCHERS – to meet your research needs, we will strive to provide

- up to date, comprehensive resources, relevant to the University's research strengths
- reliable, convenient, flexible access to information
- skilled staff to assist with your information research
- information services tailored to your needs

STAFF – to meet your information needs, we will provide

- up to date, extensive, relevant resources
- reliable, convenient, flexible access to information
- skilled proactive staff to assist you
- an environment conducive to learning

EXECUTIVE – to meet the University's evolving needs, we will

- align our services and resources to your needs
- constantly update the skills and knowledge of our staff
- lead and innovate in information service delivery
- provide up to date and extensive information resources
- use the best available technologies
- seek beneficial strategic alliances and cooperative ventures
- strengthen the University's reputation through participation in global information sharing initiatives

Together with the purpose statement "We help people learn", the value statements serve as a wonderful device to focus activity and resources in the directions that DO add value for the Library's customers. This is why this paper is titled "Value not Virtual". Without understanding the needs of users, without understanding what helps and hinders access to services, a service provider can be seduced by technology and deliver services that are, perhaps, gee whiz, but that do not serve in the best interests of the consumer of the service.

Unpacking the value statements reveals a great deal about Deakin University Library's services. The statements are loaded with performance standards and targets. For example, a catalogue that is comprehensive and reliable required that ALL items are catalogued and catalogued quickly on receipt, and delivered on a server and network that is available 24 hours per day, seven days per week. The values around the Access and Delivery statement for off-campus students state a fast, reliable, responsive service that is equitable. This implies prompt delivery of items requested or prompt responses to reference questions, a service that is dependable and meets its stated service standards, and, for electronic services, access that does not require the most up-to-date hardware and software, and web pages constructed in such a way that users with a disability can still access the service. There are a great deal

more inferences that can be drawn from these statements and the examples given simply serve as a guide to the thinking that lies behind providing such statements to the Library's users and stakeholders.

The fact that there are separate value statements for different customer segments reflects that the needs of each group are slightly different in emphasis. At the end of the day, all users want information resources and services that help them achieve their learning and research outcomes. When the value statements were developed, it was obvious that, for the Library to really add value, services had to be tailored to reflect the different needs of the users. However, the core services were the same (information resources, staff to provide services, and access & delivery). Depending on the user's mode of access to the Library - physical or virtual - the physical environment and electronic infrastructure became important factors in addition to the core services. By understanding these factors, the Library has been able to capitalise on "the same service" and make it relevant to the on-campus user as well as virtual library user.

Deakin's Virtual Library

Having described the philosophies behind the Library service, it is appropriate to provide some information about Deakin's virtual library service. The Library Home Page (http://deakin.edu.au/library/) is the principal access point for what would normally be called the virtual library. From the home page, a user can gain access to catalogues of libraries, not just Deakin's; electronic information resources; the electronic reference desk; services such as loans and inter-library loans; information about other services such as opening hours, campus maps, the reciprocal borrowing scheme; library staff; online training; and an electronic feedback/suggestion box.

Collection Development: It needs to be emphasised that the foundation of an excellent library service is the information resources available. Not all are yet in electronic form, not all ever will be, and, perhaps not surprisingly, not all

library users want electronic information. The physical item is still a valued part of any library collection.

When serving off-campus/virtual students, the collection development policy is crucial for providing a quality service. At Deakin University, there is no separately housed collection to service remote learners. Instead the lending collection of all six campus libraries, comprising over 1,400,000 volumes, is available for loan on request. The Library has developed a formula that is used to calculate the optimum number of multiple copies of a title to be purchased from a unit reading list. The formula takes into consideration whether the unit is taught off-campus and/or on-campus, the number of students enrolled, and the number of other titles on the reading list. Books borrowed by off-campus students stay out on loan for longer periods as the loan length takes into account the delivery time based on whether the student lives in an Australian metropolitan or regional city, elsewhere in Australia, or overseas. It is necessary, therefore, to acquire additional copies of texts and recommended reading resources if the unit is for off-campus delivery so as to ensure that demand, by both on and off-campus students, can be met. The Library monitors lending statistics and inter-library loan requests to identify high demand titles and others that should be purchased for the collection.

Information Service: An easy to use virtual information service is vital for off-campus students, as they do not have the luxury of being able to go to the reference desk in the library and ask a librarian for assistance. At Deakin University, off-campus students may request, via www, email, computer conference, telephone, facsimile and post, subject searches and liaison librarians will search the Library's catalogue or reference resources such as indexes and abstracting services on behalf of the students. The results of the search are sent back to the student together with either two or three books and/or photocopies that satisfy the information required. If an extensive bibliography were generated by the subject search, then the student would be

requested to prioritise the items required and send the bibliography back to the Library.

Delivery Services: If the student wishes to borrow books or requests photocopies of journal articles only, in addition to the above methods, requests can be made via the Library's online catalogue system, Innopac, using the "request an item" function. Deakin University Library set the benchmark for quality delivery services to off-campus students from its inception. Although more and more electronic resources are added to the Library's collection, physical items are still in high demand. Books are delivered by courier service, express post or, in the case of overseas domiciled students, by airmail. For students living in Australia, a pre-paid return courier or express post satchel is included in the delivery satchel so as to ensure students can quickly, and at no additional cost, return the items to the Library. Overseas students are reimbursed for return airmail postage at the end of each semester. Anecdotal evidence suggests that one reason why Deakin University attracts off-campus students, particularly higher degree by research students, is the excellent and easy to use off-campus library service.

While this may seem an expensive delivery service, in reality it is not. By minimising the turn-around times for the books, less duplicate titles need be purchased. All off-campus students pay an off-campus library levy in their general service fees. This fee, currently A$25.00 per semester for Australian students and A$36.00 per semester for overseas domiciled students, pays the courier and express post costs associated with this service. This is particularly important to ensure that on-campus students are not subsidising this off-campus delivery service.

The off-campus library levy is much preferable than requiring students to pay per transaction or by weight of the package dispatched. Such a fee structure would penalise students who read widely. Also, if students were required to pay the return postage costs, research indicates that the turn around time of

books on loan would increase, as the cost would be a disincentive to return the books quickly. In Australia, many other university libraries have now adopted the Deakin University approach of the library providing pre-paid return satchels. It is very popular with the students and is efficient to administer and manage from the Library's perspective, as there is minimal paperwork to be processed with each transaction.

Photocopies, which do not have to be returned, are either dispatched with books in courier or express post satchels or sent by regular post. If an item is required urgently, the Library will send an article by facsimile. With changes to the copyright laws, the Library will digitise articles and these will be sent via electronic file transfer to the requester's workstation. Already, Deakin University Library uses ARIEL to transmit electronic inter-library loans of journal articles to requesting libraries. This technology can be used to deliver articles to off-campus students as well.

Performance standards are vital in providing an excellent service. The following standards apply to the off-campus library service.

Loans

95% of items held by Deakin University, and available for loan, are dispatched within 24 hours of receipt.

If a request is received by 11.30 am, and the item is available, it is dispatched by 3.00 pm on the same day.

The courier contract requires next day delivery of items to most Australian addresses

Subject Requests

85% of subject requests are dispatched within 5 working days of receipt of request

Photocopies

80% of photocopies are dispatched within 5 working days of receipt of request.

Electronic Resources: Information technology is seen as a tool for facilitating access to Library services. As identified before, Deakin University has been honoured for its innovative use of IT. The University has installed extensive local and wide area networks and provides extensive modem banks to facilitate access by staff and higher degree by research students to electronic services. Undergraduate students are required to open accounts with commercial Internet service providers. In addition, there are 24hr general-purpose student computing laboratories on each campus and all campus libraries provide electronic information workstations that are available all hours that the libraries are open.

The Deakin Learning Toolkit: To facilitate access to all University electronic services, not just library services, the University distributes annually, to all staff and students, the Deakin Learning Toolkit. This CD-ROM was originally intended to deliver a suite of software to students to facilitate their study at Deakin. It contains Netscape Communicator and browser plug-ins and Internet utilities, Eudora for e-mail, library search software and bibliographic software, anti-viral programs, decompression software, Adobe Acrobat Reader, and some commercial computer-based training modules. Also included are specific software licensed as part of the University flexible learning and teaching programs such as the FirstClass conferencing software. With this type of software only students who are studying particular courses can load the software, having been separately provided with special user accounts. In total, there are 24 software programs for Windows, and 20 for Macintosh packaged on the Toolkit for students and staff to install and use. Manuals and guides are provided in pdf format.

Today the Deakin Learning Toolkit includes information on all the Faculties, Schools and Research Centres of Deakin University. In addition, the Deakin University Undergraduate and Postgraduate Course Handbooks and information on enrolments, examinations, results and graduations, as well as important dates throughout the academic calendar are included. In the Services section on the Toolkit is a wealth of information about the myriad of University services provided for student welfare. General information on student associations, parking and security, campus maps, bookshops, academic dress standards and equity and equal opportunity policies, is included as well as details on accessing child care, chaplains, health and medical services, careers advisors, and counsellors. International students are specifically catered for and there is information on study and language skills.

The Library reduces barriers to accessing its resources and services by having a dual focus of developing resources for the Toolkit and for the Library's web pages. (McKnight, 2000) As a result, there are multiple options for accessing the full range of Library resources and services, and this benefits all students, both on and off-campus. As with all other pages on the Toolkit, live links are provided to the corresponding information on the Internet so that the most up-to-date details are always accessible. The Library Catalogue (with either a www or telnet interface) and Title and Subject Lists of Databases buttons link to the actual electronic resources provided by the Library. In the case of databases, some, such at the Silverplatter ERL suite of resources, are locally mounted at Deakin, while other electronic resources maybe located anywhere in the world. End user authentication is invoked when access is requested to licensed resources. Users of the Toolkit, if connected to the Internet, can also access the catalogues of libraries in Australia and worldwide from live links on the Library's home page.

The Library's "Services for Students" button on the Toolkit provides a wealth of information. In addition to opening hours and campus addresses and

phone numbers, there is general information on services available for any student. Included here are Frequently Asked Questions relating to borrowing privileges, as well as specific details on how to renew a book, how to reserve an item on loan, how to request a book or journal article from another campus library, and what happens when items become overdue or lost. The Interlibrary Loan service is described as well as in-library photocopying facilities. There are separate sections providing information on library services for off-campus students and those who have a disability.

The "Research Skills" button provides the user with a rich selection of tools and actual electronic resources. In addition to providing links to some of the topics already described, there is information on how to evaluate information resources and descriptions of numerous citation styles. There are tips on scientific and research writing and how to write a thesis, as well as how to locate and borrow theses. There are guides to using the Internet and other searching tools such as FTP and Telnet. Details on how to locate periodical articles in print and electronic resources are provided as well as information on electronic journals, citation indexes and newspapers. There are links to electronic reference resources such as atlases and maps, dictionaries, encyclopaedias, books of quotations, directories of telephone numbers, postcodes, e-mail and Internet addresses and electronic reference sites. As well, there are style guides, handbooks and yearbooks, almanacs, and explanations of acronyms. There is also help on searching for standards, statistics and Australian and State government information.

The Library has created three specialist tutorials on Internet Searching, EndNote and Web/Mac/WinSpirs to further enhance access to resources and services. These tutorials are available on the Toolkit or from the Library's Home Page. Additional tutorials have been developed on general catalogue use and on information literacy skills aimed at 1st Year students. From 2001, it is intended that all of the Library's www-based tutorials will be delivered through TopClass, the University's Instructional Management System.

The Electronic Forms section enables the user to either link to the Library Home Page to make electronic submissions for off-campus subject requests, off-campus journal article requests, and interlibrary loan requests or to print off the form for manual completion and mailing or faxing to the Library. Overall, the Library's section on the Toolkit contains approximately 160 "pages" of information and over 260 live links to resources held beyond the Deakin domain.

A huge benefit of the Deakin Learning Toolkit is that it provides a wealth of resources and information for remote learners without the cost of telecommunications. Students (and staff) can explore the contents of the Toolkit at their leisure, and only make the communication connections when they are ready to access information via the Internet. The Library 's tutorials enable users to gain the necessary skills to explore the Internet, research topics in the Library's electronic databases and e-journals, and to manage their bibliographic citations before they use the live resources, thus saving them time and money in inefficient and ineffective search practices.

Reciprocal Borrowing: In Victoria, there is a reciprocal borrowing scheme that enables students and staff of any university or any technical & further education college to borrow directly from a participating library. (See CAVAL http://www.caval.edu.au/phamp.htm) This scheme is based on the philosophy of sharing information resources and providing easy access for staff and students. Net lenders are financially compensated annually by net borrowing libraries. This is a great service for off-campus/virtual students who may have easy physical access to another higher education library. In addition, the Off-Campus Library Service will provide letters of introduction to other Australian or overseas libraries to facilitate either reading or borrowing access for individual off-campus students.

Research and Dissemination of Information on Library Services for Off-Campus Students

To be a leader, one has to be at the head of the pack. Not only has Deakin University been providing an excellent library service for remote students, it has been contributing to the body of knowledge about what library services are required to effectively serve students who choose to study in this mode. A wide range of papers by Deakin University Library staff have been published covering research areas such as:

. Who is responsible for library services for off-campus students?
. Library needs of off-campus higher degree by research students; and
. Library usage by off-campus students. (See References for further examples)

What Now?

As indicated earlier, Library management places a great deal of emphasis on developing the skills of its staff so that they may be well equipped to deliver the services required of users. Professional development days, online training modules, and specialised staff development opportunities complement a formal induction process for new staff. At the moment, the Library and the University's Information Technology Division are piloting the International Computer Driver's License to see if it will be appropriate for delivering basic and advanced training in Microsoft Office products.

The Library is working much closer with the University's Learning Services Division, which is responsible for the creation of learning environments and course materials, and academic professional development. Library liaison librarians are included in the multi-disciplinary project teams that work with academic staff to develop or redevelop curriculum materials and new online learning environments. Being in at the design stage of new materials enables the integration of curriculum and support materials, as well as communication links, to make it easier for the student.

The virtual learning environment has created a strong need for academic professional development at a variety of levels. Liaison librarians are spending much more time with academic staff, one-on-one, to help them with general computing skills as well as with specialised information access and information management skills.

Maintaining a strong customer focus is vital if the Library is to continue adding value to services. To this end, surveys of users, formal focus groups and other feedback mechanisms will continue to be used to provide that much needed input to strategic and operational plans. The Library does not pretend to know what the user needs, and by asking the user and then delivering the services, the Library's reputation is constantly enhanced. This helps to retain and motivate library staff who want to work in an environment that values its staff and provides rewards and recognition for excellent service.

The real challenge today is how to provide the excellent services available for predominately Australian students to a growing market of overseas/virtual customers. The globalisation of higher education will require Deakin University Library to extend library services across the world and providing 24-hour access to humans as well as to electronic services. Of course, if this can be achieved cost-effectively, this extended service will enhance services to those Australian students who suffer from insomnia!

"Value not Virtual" is my message. Don't become seduced by the technology or the rhetoric of the virtual campus. Ask what your users really need and try to deliver it. If a library service has a clear mission, such as "We help people learn", strategic and operational plans that are based on user input, and a clear understanding of what adds value for the particular user groups, all users, whether on-campus or virtual, can only benefit.

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Paper 2

S. McKnight, 2002

Managing Cultural Change: the Challenge of Merging Library Services, Curriculum Development and Academic Professional Development

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Abstract

The paper outlines a number of processes that have been implemented by Learning Services at Deakin University to gain significant and sustained cultural change amongst staff in a blended organization, comprising the university library service, the curriculum design and development functions and those of academic staff development. The processes involve customer discovery workshops to identify "customer value packages", strategic planning and performance tracking based on objectives that deliver customer value, and the identification of shared staff values that guide behaviour within Learning Services and with customers.

Introduction

Change is endemic. It is rapid, and often has significant implications. Some staff are "change junkies" and others are less able to embrace change. However, the impact of change on staff in academic libraries is profound, and management have a role in making sure that staff are better able to understand, participate in and manage the change themselves.

Academic libraries are dealing with a multitude of change agents, from budget constraints, increasing use of, and rapid change in information technologies, changes in scholarly publishing, and demands for greater accountability and benchmarking, to devising and implementing new services for an increasingly sophisticated and demanding user population. Many academic libraries are also dealing with converging organisational and service structures, with libraries combining with information technology service departments and teaching support and curriculum development units.

This paper deals with cultural change, which has been described by Scammell (1997) as

> *"Lasting structural and social changes (within an organisation or set of linked organisations), PLUS Lasting changes to the shared ways of thinking, beliefs, values, procedures and relationships of the stakeholders."*

This discussion is primarily focused on the internal aspects of managing cultural change. It focuses on the cultural change associated with creating a

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working environment that is a blend of professionals, re-engineering processes, creating new teams, and the overarching need to establish a shared set of values that defines the blended organisation.

Much of the internal cultural change has evolved from a focus on the prime customer groups, of understanding their value packages (their hierarchy of needs and desires) and of discovering what irritates them about existing practices, services and resources. The research undertaken to define the customer value packages provided the evidence that drove the internal cultural change.

Background of Deakin University and Learning Services

The University

Deakin's vision is to be Australia's most progressive university, internationally recognized for the relevance, innovation and responsiveness of its teaching and learning, research, partnerships and international activities. Deakin University was established in 1974 and began teaching in 1977. The University has 70,000 students enrolled each year, and specialises in student-centred education and lifelong learning. It has six campuses across the State of Victoria, three in Melbourne, the capital of the Australian State of Victoria, two in the second largest city in the State, Geelong, which is 70km from the capital, and one in Warrnambool, a thriving regional centre 200 km from Geelong. Deakin has five faculties: Arts, Business and Law, Education, Health and Behavioural Sciences, and Science and Technology. It offers awards from undergraduate degree to research and professional doctorates.

All Deakin students have choices about the way they study. Students can attend lectures on campus and receive face-to-face teaching, but thousands of busy professionals have discovered a different way to study - using flexible, online course delivery. Students receive comprehensive study packages including state-of-the-art computer-aided learning, simulations and videos.

Flexible delivery allows students to study on campus or off campus, full time or part time, or using a mix of study modes. With Deakin, students can take a degree in many fields, undergraduate or postgraduate, from anywhere in the world - at home, or where they work. Students studying on campus or off campus take exactly the same Deakin degree.

In 1993, Deakin University created Deakin Australia (now Deakin Prime), a wholly owned subsidiary company, with a brief to tailor education and training to the needs of corporate clients. It works with a broad range of national and international corporations, professional associations and government agencies. Deakin Prime has grown to become Australia's leading provider of education and training for organisations, with more than 40,000 people enrolled through partnerships and contracts at any one time.

In 1995 Deakin was named 'Australian University of the Year' for its innovative use of information technology in teaching. In 1997 it won a five-star rating from the Graduate Careers Council of Australia. In 1999 Deakin became the only university in Australia to be awarded the coveted University of the Year twice - this time for its productive partnerships with business and industry.

Learning Services

Learning Services was formed at the end of 2000 from the merger of what was the Office of Flexible Learning, the Centre for Academic Development, Learning Resource Services and the Library. Today, Learning Services comprises four quite different organisational units:

The Teaching & Learning Support Unit is responsible for educational design, academic professional development, management of the enterprise-level learning management system, and research and evaluation on teaching scholarship and pedagogy.

Learning Resources is responsible for translating the education designs for curriculum material into the actual resources used by teachers and learners, whether interactive online environments or static web pages, multimedia CD-ROMs, audio and video tapes, printed material, and accessible curriculum resources for students with disabilities.

Access and Information Resources incorporates the traditional technical services functions of a library (acquisition, cataloguing, collection management) but is also involved, more and more, with managing information resources and systems for digital objects (e-Readings, digital information for students with a disability, and digital course materials, with an emphasis on complying with copyright, intellectual property and disability discrimination legislation and policies).

Library Services is the traditional public services of the library. It is responsible for reference and information services, resource delivery including loans, inter-campus and off-campus loans, inter-library loans and shelving, the information literacy and liaison programs, and collection development.

As of July 2002, Learning Services employed approx. 300 people in 230 effective full-time positions across six campuses. There is a wide variety of professional categories represented within Learning Services, including: librarians and library technicians; academic staff with specialist skills in education design, research and evaluation, and professional development; instructional designers (many with teaching experience); graphic designers; programmers and www developers; system and database administrators; photographers; editors/material developers and publishing support officers; printers and finishers; video and audio producers; accountants; business managers; copyright experts; and administrative and clerical staff.

As you can see, there is quite a range, and if you consider the philosophical backgrounds of the professional areas, you start to see the challenges in bringing together these diverse sets of cultures and experiences. However, we believe we can deliver greater value, or be more than the sum of the individual parts of Learning Services, by working together in the new online and digital environment.

Why must we change?

As with most organisations, universities are undergoing significant change due to the increasing "massification" of tertiary education, the increasing globalisation of higher education, pressures due to space and financial constraints, and the increasing commercial imperative to seek new markets and raise additional revenue. These, together with rapid changes in informational technologies and increasing expectations of students, mean that staff employed in the higher education sector must cope with constant change, not only in work processes but also in the way we think of students and other staff members. Universities are increasingly reflecting the language, policies and processes of the business world.

It is worth highlighting that over the last ten years, Deakin University has undergone significant organisational change, becoming a blended organisation, comprising the original Deakin University (Geelong), which was itself a merger of two organisations, the Warrnambool Institute of Advanced Education (in Warrnambool) and Victoria College (in Melbourne), another blended organisation. Thus, the parent organisation has a variety of cultures, reflecting the different origins of the constituent members.

The Library, as an organisational unit, has had a relatively stable life, undergoing a number of relatively minor internal reorganisations but retaining its strong "library" tag. However, the other components of the organisational unit that I now manage have had a long history of restructure and organisational change for a variety of reasons. My belief is that the frequent

and destabilising restructures were the result of: a lack of vision as to the role of the groups within the University, and a clash of professional cultures and too much emphasis on professional boundaries, which result in work silos, rather than focusing on the needs of students and academic staff and working together to deliver these needs.

Therefore, the bringing together of a relatively stable, high profile and well respected Library, serving students and academic staff as individuals, with a group of organisational units that rarely interacted with students and whose services, while of excellent quality, were only accessed by a select few academic staff, created an interesting challenge for managing cultural change.

There were also external pressures for change that were driving a reassessment of our working relationships within Learning Services. These were primarily driven by changes to the Australian Copyright Act and the Digital Agenda Act, regarding the communication of electronic information to students. Both the Library and Learning Resources Services were involved in managing copyright compliance. Both were involved with digitising material for students, for use via the e-Readings (formerly e-Reserve) service of the Library and for delivery of curriculum material to those students with a print disability. The legislative changes required a much more coherent approach to the communication/delivery of copyright material to students.

Rapid changes in IT infrastructure are also leading to the convergence in systems that deliver information to students. One of my favourite sayings is "Students don't know, or care, where the curriculum ends and the support information resources begin." As we move progressively into an online, or at least online enhanced environment for teaching and learning, there is a blurring of the services and resources delivered from the Library's integrated management system, the learning management system (course management system), and the digital object repository. In a University like Deakin, that has

been creating curriculum resources for delivery to remote students, whether in print or other multi-media or online formats for many years, there is also the emerging need to link the course materials planning and production system with the digital object repository, to link the digital object repository to a digital printing system, and also to integrate warehousing and dispatch functions. All these developments are adding further weight to the need to manage significant cultural change, as staff have had to develop new work processes and new skills, develop understandings of new customers, and form new teams within the organisation, while at the same time working with new partners both within Learning Services and also within the wider University.

A further development within Deakin University is the move to deliver more and more learning opportunities online. The need to ensure tightly integrated, online learning environments, linked to all the traditional support services, has caused a re-evaluation of how we design learning spaces for students, so as to embed access to information resources and information literacy training in particular, with the traditional curriculum resources of subject outlines, study guides and readers.

The final catalyst for change that I will mention is the changing financial climate of universities in Australia, and I assume across the world, where we are trying to do more with less, where we are conscious, as managers, of delivering a significant return on investment and the need to maximise use and value-adding of existing assets. This business approach to managing staff and resources creates pressure to change often long-held attitudes in the work environment.

Change to What? Understanding Customer Needs

My management philosophy can be summed up as understanding our customers, and knowing what really matters to them. To achieve this, we ask the customers. By understanding the environment in which we work, by understanding the values of our customers, by identifying new or changed

services that would help deliver greater value for our customers and reduce their irritation level, we can develop a plan for action.

By involving staff in this customer research, by seeking their analysis of the research findings on what adds value for the customer, by their participation in teams established to define what change is required within the organisation to deliver the customer value package, we create an internal environment that is not only ready for change, but which is driving the change from the ground up, rather than imposed from management above. In this way, there is a much greater chance of staff "buy-in" and the change process is much more likely to be successful and sustaining.

The process involves conducting "customer discovery workshops"[i] where customer groups (undergraduate, postgraduate coursework, postgraduate research, off-campus, academic staff etc) participate in facilitated workshops. Learning Services staff also attend, sitting in the background, listening to the feedback, but not commenting as this would stifle comments from the customers. In the first part of the focus group workshops, the participants identify, in silence and individually, the irritants that they perceive about the existing services. This way, the issues are identified but there is no "you think that's bad, listen to what happened to me" situation. These comments are then gathered for analysis after the workshops.

Then the participants are lead through a visioning exercise, where they are asked to imagine a time, three to five years on, when they have been successful in their endeavours at university, and they are asked to identify what services, provided by Learning Services, helped them achieve their success. This exercise, through a prioritising process, leads to the identification of the services and resources that are most valued. The participants are then asked to rate the current performance of Learning Services in delivering the identified services. This results in a hierarchy of

value elements and a gap analysis on perception of current performance, which can then be analysed to identify strategies to close the gaps.

When Learning Services was formed, the Library had been conducting customer discovery workshops for a number of years. The staff were used to the process and had been successful in acting upon the feedback. With the formation of Learning Services, there was a need to conduct similar workshops focusing on the new, wider range of services that had not been previously identified in the Library's customer research activities.

For Learning Services the top value elements are, in order of highest to lowest importance:

Library Value Factors

- Relevant, current, accessible book collection
- Easy access to more online Library resources
- Sufficient copies of key texts
- Approachable, knowledgeable, competent staff
- Access to and availability of journals
- Affordable, flexible and reliable photocopying and printing
- Reliable, up to date IT computer support
- Timely access to Library staff and online help
- Environment conducive to study
- Adequate opening hours
- Library skills training to find information
- Clear signage

Teaching & Learning Support Unit/Learning Resources Value Factors

- Up to date practical, education advice and support
- Timely responsive service
- Working together

- Adequate appropriately managed resources

- Focus on quality and improvement

- Training and Professional development responds to my needs

- Flexible service delivery

- Friendly competent co-operative staff

- Commitment to facilitation of on-line delivery

- Knowledge of and access to staff and services

The process described has been the framework used to deliver cultural change. It is based on asking the customer, and not assuming that we know what is good for the customer. It results in challenges to existing policies and work practices, and engenders a greater value on teamwork than would otherwise be evident, as customers invariably do not distinguish between particular aspects of the service, perhaps delivered by different parts of the organisation. What they describe is the outcome of an end-to-end process, and to deliver the value, all parts of the organisation, in our case, Learning Services, must work together.

Inter-disciplinary teams are formed, often involving customers as well, to analyse the customer value feedback results. These teams review existing work practices and identify new ways of delivering the service to remove irritants and add value. By listening to the feedback of customers, Learning Services staff realise that changes are necessary, and that, perhaps, they could improve on what they currently do or deliver. The customer feedback research forces an honest appraisal of services and resources and highlights, from the customers' perspective, why change is necessary. Thus, the changes are customer driven, and not by management in a top down approach.

Prior to the merger that formed Learning Services, the Library had adopted a "purpose statement", rather than a vision or mission statement, that guided thoughts and actions. This purpose statement was "We help people learn."

After the merger that formed Learning Services, this purpose statement became "We help people teach and learn", which reflects the direct role of Learning Services in assisting academic staff to develop curriculum material and the role of the group in delivering academic professional development. I suggest that had the Library not merged with the other groups, it would still have changed its purpose statement to this one, as librarians are becoming increasingly involved in the design of integrated online learning environments and in delivering, in the classroom or on the web, information literacy training to students (and academic staff).

Customer discovery workshops are now being supplemented by smaller, more frequent feedback sessions. Learning Services staff use data from the customer research to identify the objectives that will deliver the customer value packages, and these then form the basis of the Learning Services Strategic Plan. The Strategic Plan is written in the format of the Balanced ScoreCard (BSC) with the four perspectives: Financial, Customer, Internal Processes and Learning & Growth, ensuring that all aspects of our operations receive attention so as to fulfill the customer value packages (Kaplan & Norton, 1996).

The objectives contained in the current Learning Services Strategic Plan, including the Library operations, are:

Customer Perspective

C1.   Satisfy our customers

Contribute to the success of our customers and continually improve customer satisfaction by focused delivery of the selected value models, i.e. what they believe is important.

C2.   Be First to mind

Develop our reputation and profile such that Learning Services is first to mind for assistance in teaching and learning within Deakin. We are the acknowledged leader, the provider of choice. Customers associate our products and services with excellence. Customers know, understand, value and use our services and resources.

C3. Extend our reach

Increase the numbers of people and levels of interaction with our services and resources.

Expertise, resources and systems of Learning Services underpin the University's knowledge management initiatives and strategic priorities.

Internal Processes Perspective

I1. Dramatically improve core processes

Dramatically improve the efficiency and effectiveness of core processes which deliver customer value packages.

Dramatically reduce the end-to-end time of key core processes.

I2. Continually improve productivity

Strive to improve productivity to achieve savings that can be applied to further enhance our productivity.

Learning & Growth Perspective

L1. Invest in people

Invest in selecting, retaining and developing our people in a supportive and innovative work environment, where they are recognised and rewarded for excellence.

L2. Strategy driven technology

Exploit new and existing technologies to maximise productivity and value.

L3. Living our values

Demonstrate commitment to our purpose and values through our daily behaviours, policies and practices.

Financial Perspective

F1. Maximize asset utilization

Continually seek ways to maximise the use of our assets and resources to deliver greater value to our customers and the University and minimise unproductive overheads.

F2. Develop beneficial partnerships

Maintain and seek beneficial partnerships that enhance our services and resources.

F3. *Drive change and decision-making*

Play a key role in the success of the University's planning and decision-making.

Ensure University decisions and directions are influenced by Learning Services' vision and requirements.

Ensure that sufficient funds are allocated to support our strategic priorities.

An important aspect of using the BSC framework is the focus on performance measurement. Learning Services is currently implementing the CORVU balanced scorecard software so that all staff can track our performance on a regular basis. I have to admit that we have struggled to identify the most appropriate measures to track our performance, but we are getting closer to having the right mix of lead and lag indicators so that we can identify problem areas (areas where our performance is not what we expect or desire) early enough so that remedial action can be taken before it is too late to have a positive impact.

The BSC representation of our strategic planning objectives and performance is a great way to share results and to aid communication, both to staff within Learning Services and also with our customers and stakeholders. The performance is displayed in a www format, linking the customers' values (from the customer research), with the Learning Services objectives and with the operational level strategies to action the objectives, and finally to the targets and associated measures of all units within Learning Services.

This very public way of displaying what we are trying to achieve, how we are going to achieve the objectives, and the actual performance is a great way of facilitating cultural change. Staff see how their individual contributions link to the overall goals of the organisation, how they must work as a team to deliver the customer value packages, and they learn to think in an end-to-end service

model rather than simply focusing on their "small bit" of the business of Learning Services.

Roadblocks to Cultural Change

Despite the idealistic rhetoric here, the reality is that Learning Services is not perfect, by any means, but we are doing very well when compared to other parts of our University. The processes employed go a long way towards minimizing the impact of internal politics and personal egos, which can be significant blockages to change.

A major impediment to cultural change that was encountered was the gulf between the Library's preparedness to work within the customer discovery research and BSC framework and that of the other parts of the merged Learning Services. The Library had had four years of experience of working in this way, and the others were starting from scratch. Therefore, we experienced frustration from Library staff as we worked to bring everyone up to the same level of understanding. Library staff felt that they were standing still, and not progressing, while this was being done. There was jealousy towards the Library because of its very high reputation and standing within the University.

The next impediment was having all Learning Services staff understand the need to change. This was overcome, in part, by involving staff in the customer discovery workshops and subsequent analysis of results. However, there are still many staff who have not taken part in this process, and only over time will they have personal experience of listening to customers and accepting the feedback as the basis for action for continuous improvement. In the meantime, the staff "champions", who have been involved with the process, act as advocates with their work colleagues.

Centrally organised staff development activities, including Change Management training and Customer Service training, have been conducted. A large number of Learning Services staff have participated in these activities.

In the process of analysing results of the customer value feedback, and in the subsequent reviews of our core processes, it became apparent that we have a clash of professional cultures, with academic staff employed within Learning Services placing more emphasis on the researching, thinking and evaluation of actions, while those in the Library and in Learning Resources, in particular, more focused on action. By understanding that we are all involved in a chain of actions that lead to an outcome, a result, a service or product that is delivered to the customer (learner or teacher), we are better equipped to value our own differences and see how everything must fit together to deliver what the customer wants and values. It is slowly breaking down a "them and us" mentality.

There are also language differences and poor communication. Some words mean different things in different professional disciplines and we are trying to develop a common vocabulary so that there is clarity and understanding when we use terms. Poor communication is not new in any organisation, and especially one that is so geographically dispersed. We will never be perfect, but we are striving to improve communication amongst work groups and across campuses so that there is broader understanding of all parts of the organisation, and that information is available for all to interpret and use as required. There is extensive use of an Intranet to share information, and global emails to all staff keep people abreast of important news.

Finally, there are entrenched practices and past histories that impede cultural change. There is the potential for mistrust and misinterpretation based on past experiences. Only time and positive experiences will overcome this. However, by demonstrating success through high levels of customer and stakeholder satisfaction, we start to share "wins" and demonstrate the value of

partnerships, which help to develop trust and shared, positive histories. Success breeds success.

Shared Staff Values

During 2001, the management team realised that it would aid our cultural change if we could go through a similar exercise as we had done with our customers, to understand what we value as individuals working in Learning Services. Research by St. Hubert Saint-Onge (2001) indicates that by identifying shared values, and articulating these within the workplace, there is a great deal more synergy between different work groups. The glue, binding all aspects of a successful organisation, is Shared Values.

Over 170 Learning Services staff participated in facilitated workshops to identify the values that guide our behaviour at work. A small team took the results of these workshops and developed the final list of our core values. These are:

We commit to our colleagues and clients.

We take responsibility.

We willingly share knowledge and skills.

We connect ideas to action.

To be able to demonstrate that there was a strong and common set of values, within Learning Services, was very important. Despite the different professional backgrounds, we were one organisation, with common values and philosophies, delivering quality services and resources to the University community. At this moment, we are in the process of conducting workshops with each workgroup so that they can articulate, for themselves, in their particular situation, how these values will be demonstrated in the workplace. We are convinced that this process will go a long way towards breaking down

the few barriers that still exist between the merged entities that make up Learning Services.

When I return to work from this conference, my management team will be considering the introduction of monthly workgroup awards that encourage demonstration of our shared values. This way we are hoping to internalise our values, constantly demonstrating that we consider these are important, and to reward staff who "walk the talk".

Moving On

I believe we have been successful in achieving cultural change. Staff are aware of our customers' values, are focused on delivering the customer value packages, and are proud of their own and their group's contributions to achieving these. There is a common framework to discuss work and we have improved the tracking of our performance.

Staff morale has been improved. There is a greater understanding of how all the bits of Learning Services fit together. There is less concern about future change, as rather than change being seen as a "bad thing", staff are empowered to make change because it improves our performance in achieving the customers' needs. They now understand the reasons for the change, and that the changes will have a positive impact on our customers.

As a result of the focus on customer needs, we have improved general management practices: Strategic Plans are "strategic"; operational plans link to the strategic plan; performance measurement tracking is used and reports on performance are available on the www for all staff to see; budgets (try to) follow strategic decisions; and skills audits and staff development plans are informed by our strategic directions.

The net result is that we enjoy a high reputation within the University for being customer focused, for delivering what is required, and for demonstrating sound financial and staff management. This brings benefits to Learning Services when additional funds are required for projects or when budgets are being considered for cuts. Because we can link our plans and budgets to the direct needs of our customers, we have a far greater chance of gaining additional resources or surviving funding cuts. In addition, we have developed our reputation as expert service providers.

The cultural change has been profound, and is still ongoing. Given the environment in which we work, further significant change is anticipated. However, we look upon the future as an opportunity to deliver even better services and resources.

In some ways we have dared to be different. We have behaved more like a commercial business rather than like a university or traditional service organisation. However, it has been, and will continue to be, worth it.

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Paper 3
S. McKnight, 2006

Customers Value Research

Management, Marketing and Promotion of Library Services Based on
Statistics, Analysis and Evaluation, edited by T.K. Flaten, K.G. Saur,
Minchen, pp.206-216.

Abstract

The needs (or value factors) of academic library customers, principally academic staff and students, are the same regardless of what country in the world they come from. Examples from two university libraries, in Australia and the United Kingdom, are used to demonstrate that, using the same methodology, there is very little variation in what customers value about academic library services. The main variations that do occur are in the irritant factors, the local aspects of the library service that annoy or frustrate customers, but even with these, there are common themes. A description of the methodology for Customer Value Research is provided and the benefits of using this methodology are explained.

Customer Value Research

There are a variety of ways and means of obtaining feedback from customers and there is no right or wrong way to do this. However, we ought to be obtaining customer feedback because:

- Customers matter – libraries are service organisations and should understand and respond to customer needs

- Library staff make assumptions about what customers require, and these assumptions are not always accurate

- If library management does not know where to put resources (staff and funds), the result can be a waste of time and effort without adding any value to the customer's experience

- Acting upon the feedback from customers can be a powerful tool in achieving cultural change within an organisation, to make it more customer focused and responsive

- Monitoring the action plans that are developed in response to customer feedback enables performance monitoring and encourages a culture of continuous quality improvement.

Customer Value Research, based on Customer Discovery Workshops and Interactive Value Modeling, is an ideal methodology to use to gauge customer satisfaction where service improvement is necessary and where it is vital to engage library staff in the change process that will result. However, this methodology is not helpful if the customer satisfaction research is to be used, primarily, for across industry benchmarking, as the results of the research is

valid only for that particular library service and cannot be used for direct comparisons with other library services.

Which Customers?

In an academic library, there are many customer segments and all, if asked, will give slightly to vastly different value elements. Therefore, it is most important to first identify these customer segments. Then a choice is made, based on strategic decisions, as to which customer segment or segments are engaged in the customer discovery research process.

The comparisons in this paper relate to undergraduate on-campus students and academic staff. Details of other customer segments from the Australian university are available – off-campus students, researchers, executive stakeholders – but have not been included in this paper as comparative research has not been undertaken in the UK context.

The Hierarchy of Value

The methodology used in the Customer Value Research is predicated on a simple model or hierarchy of value. At one end the customer is angry. At the other end of the spectrum, the customer is delighted by the unanticipated services that are available to them in their interactions with library staff, services and resources. In between, there are gradations of irritation and satisfaction based on the perceptions and needs of the customer. The hierarchy includes: Angry, Irritated, Frustrated, Basic, Expected, Desired, and Unanticipated.

The model does not give a total level of satisfaction, but shows that in all complex services, sometimes we annoy customers and sometimes we delight. The total value is derived by taking away the irritation factor from the delighted (value) factors and deriving a total score of 'value'. Using a simple example, a customer seeking information for an assignment may be irritated by an inconsiderate staff member who spoke off-handedly, but pleased that they were able to obtain the information they needed. The net value to the

customer would be the 'value' of the information minus the 'irritation' of the rude staff member.

There are some services that libraries undertake that fit into the BASIC category. For customers of a traditional library, a BASIC service would be being able to find information by way of physical books and journals. Increasingly, in a modern library, they are EXPECTING to have access to a range of electronic information resources as well. In a lending library, being able to borrow items would be a BASIC service. So, if we deliver on these 'basic' services, the customer is neither annoyed nor delighted – simply they got what the believed/perceived would be available.

A customer's perception is their reality. So, it is important to understand their perceptions and to adjust service provision accordingly. A customer who believes that inter-library loan services are not available, when these are, is really telling library management that information about that service is not well communicated.

Customer Value Research – The Process

The initial process involves conducting "customer discovery workshops" where customer groups (undergraduate, postgraduate coursework, postgraduate research, off-campus, academic staff etc) participate in facilitated workshops. (The methodology is owned and facilitated by consultants, Enzyme International, which is based in Sydney and London.)

In the first part of the customer discovery workshops, the participants use a workbook sheet to identify and rate, in silence and individually, the irritants that they perceive about the existing services. This way, the issues are identified but there is no opportunity for "group think" and "one-upmanship" relating to problems experienced because there is no open discussion of the irritants in the workshop. The participants appreciate the opportunity to have their say about problems and these comments are gathered immediately for analysis after the workshops.

Then the participants are lead through a visioning exercise, where they are asked to imagine a time, three to five years on, when they have been successful in their endeavors at university, and they are asked to identify what services, provided by the Library, helped them achieve their success. Wireless keypads are used to capture the customers responses (votes) using Option Finder technology. This exercise, through a prioritising process involving forced pairing, leads to the identification of the services and resources that are most valued.

The participants are then asked to rate the current performance of the library in delivering the identified services. This results in a hierarchy of value elements and a gap analysis on perception of current performance, which is later analysed to identify strategies to close the gaps. The gap analysis between what is important and the customers' perception of current performance is very useful. High performance on a lowly rated value factor might indicate over servicing; poor performance on a highly rated value factor would be a priority area for immediate remedial action to improve performance.

During the workshop, a small group of library staff observe proceedings in silence. They also vote as to how they expect the customer to vote, thus testing assumptions about what is and is not important.

By involving Library staff in this customer research (actively listening to workshop participants and providing an opportunity to follow up issues raised at the lunch at the end of the workshop), by seeking their analysis of the research findings on what adds value for the customer and what are the irritations, and by their participation in teams established to define what change is required within the organisation to deliver the customer value package, we create an internal environment that is not only ready for change, but which is driving the change from the ground up. Rather than imposed from management above, change is driven by the customer value propositions and the staff involved in implementing the change. In this way,

there is a much greater chance of staff "buy-in" and the change process is much more likely to be successful and sustaining.

It is very important to follow up the participants in the focus groups with a note of "Thanks" for their participation and to provide a summary of the outcomes, the value propositions that were derived from the customer discovery research. That way, they know that their participation was appreciated and that library has taken notice of their opinions.

Once library staff have analysed the customer research data and identified appropriate actions to either reduce the irritants or improve the value, it is very important to communicate the changes that are happening as a result of the customer discovery research. This can be done on a regular basis, via articles in the University's newsletter, in reports to Faculty/College and School Board meetings, to the Library Committee and Academic Board. In this way, the communication reinforces the link between customer values and actions and clearly demonstrates that the library is not only listening to the people it serves, but also acts upon what is conveyed in us. The communication is not all outwards, but also into the library. The library's operational plan, incorporating the agreed actions to reinforce value elements and to reduce irritants, reminds library staff of the connection between customer value propositions and their individual actions.

Having identified the customer value propositions, it is not necessary to undertake comprehensive discovery workshops every year. Rather, I have found that an annual validation exercise, where the hierarchy of values and irritants are tested by way of an online survey, is all that is necessary. Value propositions, in my experience, tend to remain more or less static, whereas the irritants change as improvements to services remove or decrease the degree of irritation experienced.

The results of the customer discovery workshops, the value propositions, have been validated by statistically significant student satisfaction surveys in the UK university. Over 3,400 students participated in an online satisfaction survey and produced no new value factors, or irritants, than the discovery workshops that involved approx. 60 students.

The Customer Value Propositions

Understandably, the customer value propositions vary depending on the market segment. It is possible to aggregate the results from the different customer segments to develop an overall hierarchy of values as well as retain the results for the particular cohorts. Below are the hierarchy of values and irritants by two major customer segments, undergraduate students and academic staff, with 1 being the most important or most irritating. There are differences in emphasis between the needs of academic staff and student as evidenced by the different weightings for similar value factors, and by the inclusion of different value factors for each segment. However, the overall results are very similar.

Table 1: Sample Library Value Factors - Australian and UK Students

	Australian Students - 2002	UK Students – 2005
1	Relevant, current, accessible book collection	Easy access to materials where and when I need them
2	Easy access to more online Library resources	Inspiring environment which supports diverse needs
3	Sufficient copies of key texts	Comprehensive available relevant resources
4	Approachable, knowledgeable, competent staff	Knowledgeable friendly accessible staff who help me
5	Access to and availability of journals	Good quality cheap photocopying and printing
6	Affordable, flexible and reliable photocopying and printing	Availability of reliable up-to-date technology and facilities
7	Reliable, up to date IT computer support	Timely targeted training
8	Timely access to Library staff and online help	User friendly loans policies and procedures
9	Environment conducive to study	Opening hours which meet user needs

| 10 | Adequate opening hours | Services clearly communicated to users |
| 11 | Clear signage | Proactive partnerships between academic staff and library staff |

Table 2: Sample Library Value Factors - Australian and UK Academic Staff

	Australian Academic Staff - 2002	**UK Academic Staff - 2005**
1	Current relevant comprehensive collection	Easy access to materials where and when I need them
2	Reliable electronic access	Comprehensive available relevant resources
3	Access to material in other libraries	Knowledgeable friendly accessible staff who help me
4	Sufficient funding to maintain free core services	Proactive partnership between academic staff and library staff
5	User friendly accurate catalogue	Inspiring environment that supports diverse needs
6	Easy reliable access to resources and services	Opening hours that meet user needs
7	Competent friendly proactive staff	Managing multi-media and curriculum content
8	Timely responsive service	User friendly loans policies and procedures
9	Flexible borrowing system	Good quality cheap photocopying and printing
10	Environmentally responsible	Availability of reliable up-to-date technologies and facilities
11	Adequate opening hours	Timely targeted training
12	Services clearly communicated	Services clearly communicated to users
13	Good physical environment to support learning and research	
14	Effective library skills training	

Table 3: Sample Library Irritant Factors – Australian and UK Students

	Australian Students - 2001	**UK Students – 2005**
1	Difficulties with photocopying and printing	Inadequacy of the collection and its management
2	Problems with loan system and service	Inadequate expensive photocopying and printing
3	Insufficient copies of key texts	Noisy, inappropriate study

		environment
4	Difficulty in locating items in the physical collection	Unreliable and limited IT and AV
5	Insufficient training in library skills	Can't find material I need
6	Inadequate, noisy study areas	Restrictive and difficult loans policies and procedures
7	Difficulty in accessing online information	Unhelpful uninterested staff
8	Unreliable IT	Queuing for service
9	Problems with opening hours	Don't like card access policies
10	Inadequate signage	Problems with catalogue
11		Lack of training and support when I need it
12		Inadequate opening hours
13		Inadequate academic liaison and communication

Table 4: Sample Library Irritant Factors – Australian and UK Academic Staff

	Australian Academic Staff - 1999	**UK Academic Staff - 2005**
1	Materials not where they're supposed to be	Inadequacy of the collection and its management
2	Difficulties with technology and electronic access	Noisy, inappropriate study environment
3	Collection inadequacies	Inadequate academic liaison and communication
4	Problems with the catalogue	Unhelpful uninterested staff
5	Inadequate library skills training	Restrictive and difficult loans policies and procedures
6	Difficulties with printing and photocopying	Inadequate opening hours
7	Poor physical environment	Can't find material I need
8	Limited hours of access	Problems with the catalogue
9	Service delays	Inadequate expensive photocopying and printing
10	Poor communication and feedback	Lack of training and support when I need it
11	Poor staff service	Unreliable and limited IT and AV
12	Unsatisfactory loans rules	Don't like card access policies
13		Queuing for service

The software, *OptionFinder,* which is used in the workshops to gather the input from participants, produces the rankings in a variety of formats. For instance, the hierarchy of student irritants is expressed as:
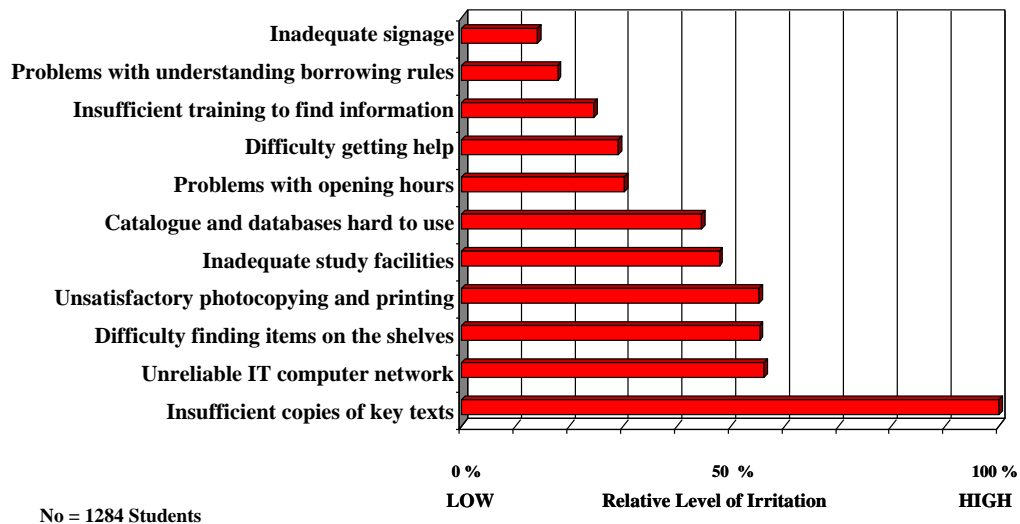
Hierarchy of Irritants - Students

Inadequate signage
Problems with understanding borrowing rules
Insufficient training to find information
Difficulty getting help
Problems with opening hours
Catalogue and databases hard to use
Inadequate study facilities
Unsatisfactory photocopying and printing
Difficulty finding items on the shelves
Unreliable IT computer network
Insufficient copies of key texts

0 %   50 %   100 %
LOW   Relative Level of Irritation   HIGH

No = 1284 Students

Figure 1: Sample Hierarchy of Irritants – Australian Students

The frequency of irritation is important to ascertain the extent of the problem, as demonstrated here. Insufficient copies of key texts is very, very annoying (the most important irritant), but occurs less than half the time students seek text books in the library.

Inadequate signage	
Problems with understanding borrowing rules	
Insufficient training to find information	
Difficulty getting help	
Problems with opening hours	
Catalogue and databases hard to use	
Inadequate study facilities	
Unsatisfactory photocopying and printing	
Difficulty finding items on the shelves	
Unreliable IT computer network	
Insufficient copies of key texts	

0   1   2   3   4   5   6   7   8   9   10
Never   Half the time   Always

No = 1284 Students
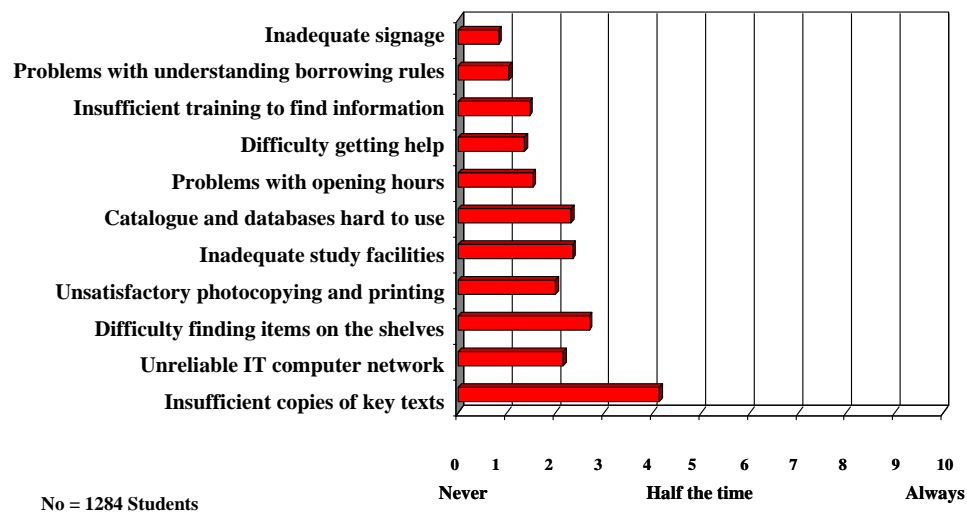
Figure 2: Sample Hierarchy of Irritants – Australian Students - Frequency

It is clear from the lists of irritants that not all issues identified fall into the responsibility of the library. For instance, the Library does not provide the University's network environment. However, it does have a responsibility to pass this information on to the relevant areas of the University to try to influence future decision-making.

There is often a close correlation between value factors and irritants: Students value "easy access to materials" and find "materials not where they are supposed to be" an irritant; they value "Up to date complete comprehensive relevant materials" and are irritated by "Collection inadequacies" and "Out of date materials".

The gap analysis is important in conforming or challenging the perceptions held by library staff. In many instances, staff are not accurate in predicting how the customers will vote. This, if left unchallenged, could result in energy and resources being spent on areas that do not add value or significantly lead to improved customer experiences.

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Students Hierarchy of Irritation - Gaps
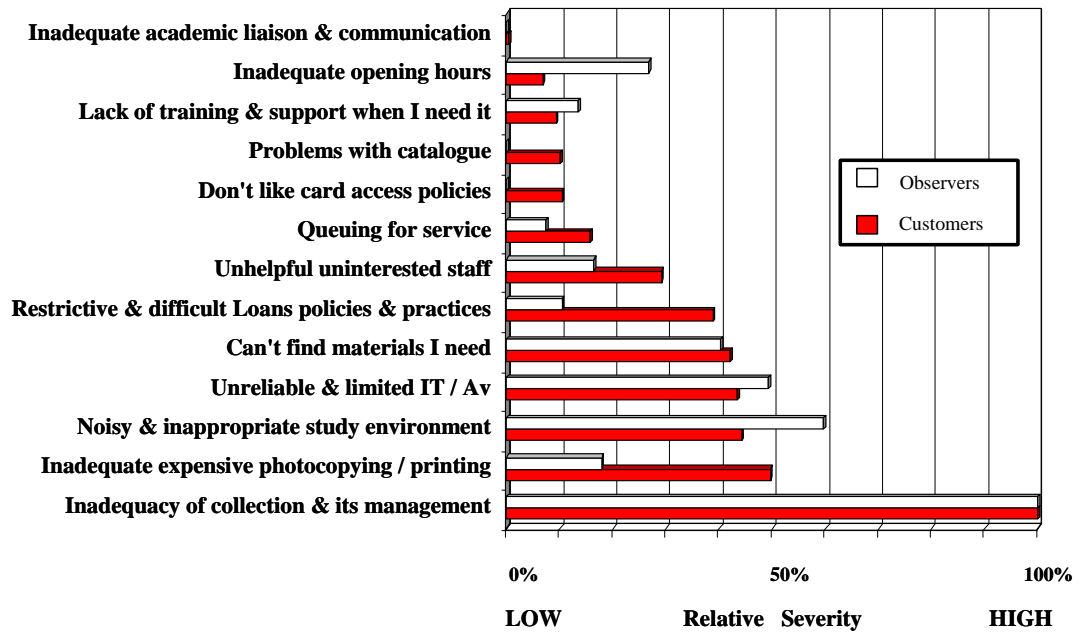
Figure 3: Sample Hierarchy of Irritants – UK Students - Gaps

Value Modelling

After consolidating all the data from the customer discovery workshops, library staff are brought together in a final workshop to consider actions that would either reduce irritants and/or improve value factors. They estimate realistic improvement targets for those values and irritants and, using the *ithink* software, can plot the likely changes in customer satisfaction. This way, library staff and management can see if the effort is worth the benefit, and this improves the quality of decision-making.

It is not possible in this paper to fully describe the value modeling exercise, and the capabilities of the ithink software. However, this method of customer satisfaction modeling rates overall performance between positive and negative 100. This is because the total value of all the irritants is subtracted from the positive value factors. This does make the overall score more difficult to explain to stakeholders, who are used to seeing a 'satisfaction rate' of a percentage, e.g. 70%. Using this model, a positive score of 30 is considered successful, as there will always be things that annoy the customer, however good the service is. The aim, over time, is to make sure that the irritant

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factors are not critical aspects of the service delivery. For instance, it would be 'better' to have customers complaining about the air conditioning of a building than about the quality of the reference service.

Having identified the irritations and value factors, it is very important to act on the findings as quickly as possible, so that customers and library staff see the benefit of the exercise and the commitment of management towards customer-focused services. The following table outlines the immediate steps taken by the UK library service as a means of reducing the irritation factors while, with the same strategies, improving value to customers.

Table 5: Steps taken by U.K. University Library to reduce irritants and improve value

IRRITANT (*VALUE*)	ACTION
• Inadequacy of the Collection and its management • Cannot find materials I need • Problems with the catalogue • *(Easy access to materials where and when I need them)* • *(Comprehensive, available, relevant resources)*	• Secured increased budget for information resources • More e-resources licensed • Weeding of out-dated items; re-spacing collection • Reclassification of collection to one schema to simplify navigation • New library management system with friendlier user interface to the catalogue • E-reading list project planned • Digitisation of Short Loan items project planned • Purchasing additional copies of textbooks
• Noisy inappropriate study environment • *(Inspiring . that supports diverse needs)*	• Emphasis on making Silent Study Areas 'SILENT' • Submissions to Estates for major capital works • Refurbishment of suburban campus library over Summer vacation 2005
• Inadequate and expensive photocopying and printing • *(Good quality cheap photocopying and printing)*	• New multi-function devices installed • Reduced costs • Colour copying facilities provided at each campus

• Restrictive and difficult loans policies and practices • *(User friendly loans policies and procedures)*	• Revised and more generous loans policy • Revised and more consistent inter-library loans policy and practices • Implementing loans policies consistently on all campuses
• Unhelpful, uninterested staff • *(Knowledgeable, friendly, accessible staff who help me)*	• All staff reminded of importance of a welcoming environment • Increased budget for staff development • Introducing Performance Development and Review to help capture skill development needs and monitor performance
• Unreliable and limited IT / AV equipment • *(Availability of reliable up-to-date technology and facilities)*	• Upgraded IT Resource Room equipment • New Resource Rooms • Consistent support for students in other University IT Resource Rooms
• Inadequate Academic liaison and communication • *(Pro-active partnership between academic staff and library)*	• Restructuring Information Team to provide support for University strategic priorities • Increasing emphasis on sharing good practice across all Schools (e.g. information literacy training, research support) • Increasing emphasis on support for e-Learning
• Inadequate opening hours • *(Opening hours which meet user needs)*	• Extended Summer opening hours • Reviewing evening and weekend opening hours as part of the Help Desk Review
• Lack of training and support when I need it • *(Timely targeted training)*	• Inclusion of library information in 'Getting Started', a 6-week online induction programme for new students • More emphasis on information skills training for all students and staff • Review of Help Desk services initiated

Conclusions

Why do we have a library? Because we have customers who need one! Customer Value Research is used to improve the service to customers. In an academic library context, it is important to know and understand what the real needs of students and staff are. Using this methodology, planning is constantly informed by perceptions of current practices and also by the future aspirations and trends of the market.

Often, having undertaken the customer discovery research, it is easy to say, "I could have guessed that" or "I always thought that was so." Rarely are there real surprises in the value factors. However, the confirmation of what is really valuable and to know the customers' perceptions of our services is a mighty management tool. The regular monitoring of performance against expectations and hierarchy of values enables close alignment of resources and services. Library staff can see how their services provide value and participate in the decision-making about how to deliver on the customer value propositions.

Everyone benefits. Students and academic staff have services and resources that help them achieve their learning and teaching goals; the library can demonstrate its value to University and Faculty Executives; library staff benefit from the praise that follows making the customers happy. It becomes a self-perpetuating cycle of continuous improvement.

Paper 4

S. McKnight, 2006

Involving the Customer in Library Planning and Decision-Making

Libraries Without Walls 6: Evaluating the Distributed Delivery of Library Services, edited by P. Brophy, J, Craven & M. Markland, Facet Publishing, London, pp.4-13.

There are many papers in this collection that provide a wealth of information and accumulated wisdom from the authors on the theme of evaluating the distributed delivery of library services. The reasons for evaluating service delivery are self evident to this audience, so does not need detailed explanation here. This keynote paper focuses more on the cultural issues, and the systems and processes that need to be in place to make evaluation worthwhile, rather than considering evaluation of individual services.

Public, academic and special libraries provide services because of customers. Therefore, it makes logical sense that we ought to involve them in planning and decision-making, so that the services provided meet their true needs. Since the start if the Libraries Without Walls series of conferences, the emphasis has moved from the physical delivery of services to remote users to today, where the focus is almost entirely on electronic services. These services are of benefit to all library customers, regardless of their physical location. However, it is important to remember that the services are for customers who may never, or rarely, come to the physical library. Therefore, it is vital that we remember that we should be providing services and solving problems for the disadvantaged and, by clever mainstreaming of these services, providing an improved service for all customers. The challenge is to identify the market segment, the users of distributed library services, and ask them about what they need to be successful in their endeavours because of their interactions with the library.

The Organizational Culture
To 'involve the customer' in library planning and decision-making requires an environment where the customer is regarded at the centre of the service. A tangible way of acknowledging the customer is to have clearly stated service statements or standards about what the library service will do on behalf of the customer, and to also spell out the responsibilities of the customer towards the service, including their role in improving the service. However, while it is relatively easy to write a set of service standards, it is very important to involve the customer in defining what ought to be included in the statements in the first place. At Nottingham Trent University, in the United Kingdom, we

have just completed a drafting exercise to articulate service standards that reflect the Hierarchy of Values as expressed by our customers, both students and academic staff. Values of the academic staff were identified and expressed in a hierarchy of importance, with 1 being the most important:

1. *Easy access to materials where and when I need them*
2. *Comprehensive available relevant resources*
3. *Knowledgeable friendly accessible staff who help me*
4. *Proactive partnerships between academic staff and library*
5. *Inspiring environment which supports diverse needs*
6. *Opening hours which meet user needs*
7. *Managing multi-media and curriculum content*
8. *User friendly loans policies and procedures*
9. *Good quality cheap photocopying and printing*
10. *Availability of reliable up-to-date technologies and facilities*
11. *Timely targeted training*
12. *Services clearly communicated to users*

These values were identified using the Customer Discovery methodology developed and facilitated by an international consultancy, Enzyme International (see http://www.enzymeinternational.com/homepage2.asp, accessed 2 August 2005). Details of this methodology are provided in the following section. Suffice to say here that the software used in the workshops provides a range of charts and graphs that indicate the relative importance of each value factor, and the impact of each value factor on the overall Hierarchy of Value. Similar charts are produced for the irritant values. Therefore, the data provided to library staff for the purpose of defining service standards is very informative.

For the customer-focused library service to be successful there needs to be willingness, on the part of library staff, to engage with the customer and to actually listen to their perceptions, which are their reality. There are some clichés that need to be challenged: 'I know best'; 'We have done it like this for 20 years therefore it must be right'. It is easy to make assumptions about the

real needs and experiences of our customers and we have to overcome this with a true engagement. The results of the Customer Discovery research, which uses a gap analysis approach whereby library staff vote on how they believe the customer will vote, certainly tests staff assumptions about how the library's services are perceived. A successful climate for service evaluation would involve a culture of continuous quality improvement, with innovation based on needs as articulated by the customer, rather than on assumptions of library staff.

But who are the customers of the distributed library services? It is important to recognize that different customer segments have different drivers and experiences, so it is important to be clear as to which customers you engage with in the customer discovery process. For electronic library services, we need to engage with the remote customers, not just those who are able to access the e-services from the physical library. Library services familiar with serving remote customers, for example academic libraries who have large numbers of distance education students, will understand that there is a staff culture that acknowledges and supports truly remote users, and this can be at odds with staff in the same library who service on-campus customers.

There also needs to be an unswerving commitment to actually do something as a result of customer feedback, unless management wants to encourage cynicism all round. There is no point in engaging with customers if there is no likelihood of changes being made as a result of the feedback. Therefore, the scope and focus of the customer discovery processes must be managed to ensure that there is a chance that improvements in service can be resourced and implemented.

Finally on the issue of culture, management needs courage to focus on the real needs of the particular library service, rather than participating in regional/national/international benchmarking per se. While there is certainly a place for benchmarking, which compares the same service criteria against similar library providers, the ranking information does not provide detailed information about what service improvements would actually benefit the

library's customers the most. Some examples will explain: measuring the number of physical library seats available in a library per 100 customers may have no relevance if most of the customers are remote; in an academic library, measuring the number of library IT workstations per 100 customers may not provide meaningful information if the IT department provides public access resource rooms. Benchmarking the number of workstations may indicate sufficient provision but, if these are old, unreliable and do not support relevant software applications the customers are not going to be satisfied.

Systems and Processes

This section identifies some key systems and processes that need to be in place if the feedback from customers is to be maximized for the benefit of the user community. A brief description of Customer Value Research is also provided, although a more complete description can be found in McKnight (2005).

Strategic and operational planning

There needs to be an overall framework that identifies the strategic directions of the organization, providing the long term goals. This strategic plan should reflect the commitment to providing excellent customer service. Ideally, the strategic plan is formulated with input from customer representatives, most likely at the Board or Library Committee level of the organization's governance. The operational plan identifies, on an annual basis, how the strategic plan is to be implemented. Included in the operational plan would be specific actions regarding obtaining customer input and the follow-up analysis and implementation of changes as a result of the feedback.

Customer Value Research

There are a variety of ways and means of obtaining feedback from customers and there is no right or wrong way to do this. Customer Value Research, based on Customer Discovery Workshops and Interactive Value Modelling, is an ideal methodology to use for gauging customer satisfaction and feedback that can be used to directly inform operational planning. However, as

indicated above, the results of this methodology cannot be used for direct comparisons with other library services.

Customer Value Research is predicated on a simple model or hierarchy of value. At one end the customer is angry. At the other end of the spectrum, the customer is delighted by the unanticipated services that are available to them in their interactions with library staff, services and resources. In between, there are gradations of irritation and satisfaction based on the perceptions and needs of the customer. The hierarchy includes: Angry, Irritated, Frustrated, Basic, Expected, Desired, and Unanticipated.

Hierarchy of Value
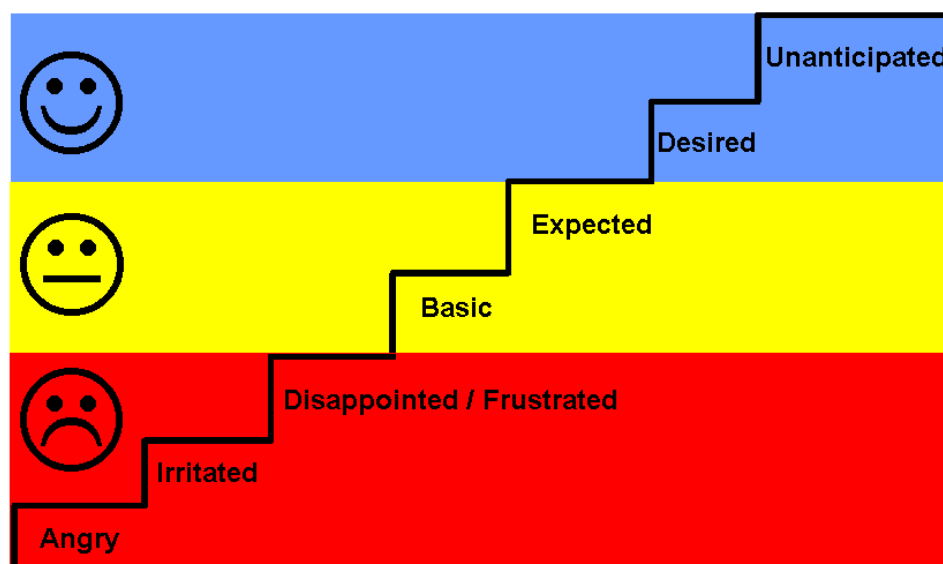
(Diagram reproduced with kind permission from Enzyme International)

In complex services, sometimes we annoy customers and sometimes we delight. The total value is derived by taking away the irritation factors from the delighted (value) factors and deriving a total score of 'value'. Using a simple example, a customer seeking information for an assignment may be irritated by an inconsiderate staff member who spoke off-handedly, but pleased that

they were able to obtain the information they needed. The net value to the customer would be the 'value' of the information minus the 'irritation' of the rude staff member.

Customer Discovery Workshops

The initial process involves conducting customer discovery workshops where customer groups (up to a maximum of 15 people) participate in facilitated workshops. It may be appropriate to conduct workshops with different segments of the customer base as all groups have different needs and drivers. In the first part of the customer discovery workshops, the participants identify and rate the irritants that they perceive about the existing services. Then the participants are led through a visioning exercise, where they are asked to imagine a time, three to five years on, when they have been successful in their endeavours, and they are asked to identify what services, provided by the library, helped them achieve their success. Wireless keypads are used to capture the customers responses (votes) using Option Finder technology. This exercise, through a prioritizing process involving forced pairing, leads to the identification of the services and resources that are most valued. The participants are then asked to rate the current performance of the library in delivering the identified services. This results in a hierarchy of value elements and a gap analysis on perception of current performance, which is later analyzed to identify strategies to close the gaps. The gap analysis between what is important and the customers' perception of current performance is very useful. High performance on a lowly rated value factor might indicate over servicing; poor performance on a highly rated value factor would be a priority area for immediate remedial action to improve performance.

There is no leading of the customers as to what is important as might be the case if a standard set of services were asked to be ranked in order of importance. The customers describe their ideal service and the data collected at the workshop is captured in the customer's terminology, not library jargon. In the process, customers make suggestions for improvements by describing their future vision of success. This is very useful and often illuminating, as

research indicates that customers do not compare our services with other libraries, but with bookshops, record stores, quick print services, and coffee shops!

During the workshop, a small group of library staff observe proceedings in silence. They also vote as to how they expect the customer to vote, thus testing assumptions about what is and is not important. The gap analysis provided by Option Finder is often revealing, highlighting that library staff are not always accurate in predicting the customers' perceptions.

One question that often arises is about the validity of the data. At Nottingham Trent University, in 2005, two customer research projects were undertaken. The Libraries and Learning Resources division conducted customer discovery workshops with 60 students (and 60 academic staff); the University conducted a Student Satisfaction Survey with over 3400 students, and the key services identified (or hierarchy of value) were the same for both groups.

Decision-Making using Interactive Value Modelling

After consolidating all the data from the customer discovery workshops, library staff who have been involved in the process come together in a final facilitated workshop to consider actions that would either reduce irritants and/or improve value factors. They estimate realistic improvement targets for the identified values and irritants and, using *ithink* software, can plot the likely changes in customer satisfaction if the targets are reached. This process enables library staff and management to see if the actions suggested will deliver real benefit to the customer, and this improves the quality of decision-making.

It is not possible in this paper to fully describe the interactive value modelling exercise and the capabilities of the *ithink* software. A more detailed description can be found in McKnight and Livingston (2003). This method of customer satisfaction modelling rates overall performance between positive and negative 100. This is because the total value of all the irritants is subtracted from the all positive value factors. This does make the overall score more difficult to explain to stakeholders who are used to seeing a

'satisfaction rate' of a percentage, e.g. 70%. Using this model, a positive score of 30 is considered successful, as there will always be things that annoy the customer, however good the service is. The aim, over time, is to make sure that the irritant factors are not critical aspects of the service delivery.

The results of the Interactive Value Modelling workshop are very high-level, and provide indicative data on which further consideration and planning must take place. An excellent way forward is to involve library staff, from across the organization, and customer representatives, to work on detailed change strategies. For example, if loan policies were identified as a severe irritant, involving library staff, from acquisitions, loans and reference services, and a customer representative, this would bring a wealth of knowledge to the action planning exercise of reviewing the existing policies and recommending changes.

Library staff participate in this customer research, through their active listening to workshop participants and providing an opportunity to follow-up issues raised at the end of the workshop, by seeking their analysis of the research findings on what adds value for the customer and what are the irritations, and by their participation in teams established to define what change is required within the organization to deliver the customer value package. This creates an internal environment that is not only ready for change, but in which staff are driving the change from the ground up. Rather than imposed from management above, change is driven by the customer value propositions and the staff involved in implementing the change. In this way, there is a much greater chance of staff commitment and the change process, aimed specifically at delivering value to customers, which is much more likely to be successful and sustaining.

Communication and Monitoring Performance

Once library staff have analysed the customer research data and identified appropriate actions to either reduce irritants and/or improve value, it is very important to communicate the changes that are happening as a result of the

customer discovery research to customers, stakeholders and other library staff. It is also important to have in place systems and processes that enable regular monitoring, reporting and evaluation of performance against plans.

Service standards, as indicated earlier, should reflect the hierarchy of value from the customer's perspective. These can be published widely and performance against these standards communicated regularly to stakeholders and the user community. While 'business as usual' activity is rarely articulated in operational plans, remedial actions or change strategies that are required to ensure compliance with agreed service standards to deliver on the customer value factors, should be reflected in the plans.

Individual staff performance reviews should be guided by the business imperatives articulated in operational plans and by the service standards. There should be an alignment, by cascading from the strategic plan, at the top level, through the library's enabling operational plan, and then to work group/team plans and on to the individual's performance planning objectives. This way, staff in all areas of the library should be able to see how their daily activities contribute to customer satisfaction and the success of the library service.

A Library Committee, which has customer representation, can provide a formal channel for monitoring library performance against agreed plans. A library annual report can be another vehicle for reporting on performance against standards. Less formal means include news articles in organizational magazines, a feedback web site and targeted communications, including email, to inform and engage customers and stakeholders.

Re-planning

Nothing remains the same. There is a constant need to evaluate actions and strategies, to check that the desired outcomes are being delivered, and that customers are receiving the basic and expected services consistently, and that some services delight and wow them. Having identified the customer

value propositions through the discovery workshops, it is not necessary to undertake comprehensive workshops every year. Rather, experience indicates that an annual validation exercise, where the hierarchy of values and irritants are tested by way of an online survey, is all that is necessary.

Should new irritants or value factors be identified in the annual validation surveys, then it would be necessary to undertake the complete customer discovery process again. This is to make sure that the hierarchy of values, which are reflected in service standards and operational and performance planning, are valid. Comparisons of two academic library services, one in Australia and one on the United Kingdom, that have used the Customer Value Research methodology, indicate that library customer value propositions are very similar for the identical customer segments, whereas the hierarchy of irritants, while including some similar concerns, reflect local situations (McKnight, 2006).

In an ideal world, library services would incorporate rolling surveys of customers to gain regular feedback on performance against the value propositions and the irritation index. The intention would be to minimize gaps between value and performance, to remove major irritations, and to match the level of resourcing and effort to the hierarchy of importance, such that low valued (but yet still valued) services are provided with a minimum of effort or resource, and services that provide greatest value are resourced appropriately to maintain customer satisfaction.

As indicated earlier, there are many different customer markets or segments served by a library. Ideally, a library would undertake customer discovery workshops with a range of customer segments, to make sure that the value propositions are being addressed from the perceptions of the different customer groups.

The intention of the methodology outlined, coupled with a library staff culture of customer focus, is to strive for continuous quality improvement and innovation. Evaluation of services is undertaken so as to improve customer experiences, and to maximize efficiency and effectiveness.

Conclusion

Customer Value Research, which enables the customer to have a direct input into library planning and decision-making, is used to improve services to customers. Using this methodology, planning is constantly informed by perceptions of current practices and also by the future aspirations and trends of the market. It is clear from the research that our customers are expecting our services to develop more in line with commercial experiences they are having beyond the library, such as those provided by the large bookshop chains and online booksellers.

Having undertaken customer discovery research to identify the hierarchy of values, it might be easy to say, "I could have guessed that" or "I always thought that was so." Rarely are there real surprises in the value factors. Library services are library services after all! However, the confirmation of what is really valuable and to know the customers' perceptions of our services is a mighty management tool. The regular monitoring of performance against expectations and hierarchy of values enables close alignment of resources and services. Library staff can see how their services provide value and they participate in the decision-making about how to deliver on the customer value propositions.

Everyone benefits. Library customers have services and resources that help them achieve their goals; the library can demonstrate its value to stakeholders; library staff benefit from the praise that follows making customers happy. It becomes a self-perpetuating cycle of continuous improvement.

Professional associations are taking a lead in promoting a focus on customer experiences. Recently, the Australian Library and Information Association and CILIP: the Chartered Institute of Library and Information Professionals published articles in their general association newsletters on this topic, perhaps reaching a wider audience than some of the scholarly refereed journals (Stanley, 2005a; Stanley, 2005b; Brockhurst, 2005). IFLA promotes the concepts of evaluation, quality and performance measurement through its Quality Issues in Libraries Discussion Group and various Sections' activities, for example the 2005 IFLA satellite conferences "Management, Marketing, Evaluation and Promotion of Library Services " sponsored by the Management and Marketing, Public Libraries and Library Theory and Research Sections (http://brgbib.bergen.folkebibl.no/ifla/ accessed 2 August 2005) and the 6th Northumbria International Conference on Performance Measurement in Libraries and Information Services on "***The Impact and Outcomes of Library and Information Services: Performance measurement for a changing information environment" sponsored by the IFLA*** Statistics and Evaluation Section (http://online.northumbria.ac.uk/faculties/art/information_studies/imri/PM5/PM5.htm accessed 2 August 2005).

The papers from the Libraries without Walls 6 Conference will add significantly to the body of literature on this topic and provide a valuable resource to librarians who wish to evaluate the distributed delivery of library services.

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Paper 5
S. McKnight, 2007

Acquisition and Cataloguing Processes: Changes as a Result of Customer Value Discovery

Evidence Based Library and Information Practice, December. pp.22-35.

Abstract:

Objective: To highlight the profound affect on the internal business processes of two university libraries as a result of Customer Value Discovery research.

Methods: "Customer Discovery Workshops", undertaken with academic staff, students and university stakeholders, to provide library managers and staff with information on what services and resources were of value to customers, and what irritated them about existing services and resources. Longer term impact was assessed in one university using a student satisfaction survey.

Results: The findings resulted in significant changes to collection development, and the acquisitions and cataloguing processes. A number of value adding services were introduced for the customer; it also resulted in greater speed and efficiency in dealing with collection development, acquisitions and cataloguing by the introduction of more technology-enhanced services. Overall customer satisfaction was improved.

Conclusions: The changes to services that were introduced as a result of customer feedback also improved relationships between librarians and their university community through the introduction of a more proactive and supportive service.

Introduction

The role of library directors is to set a vision, based on knowing where a service ought to be heading, and then let staff make the vision become a reality. This is easily said, but quite a bit harder to implement. What should our vision be? This paper describes how customer feedback has been gained and used as the basis for establishing a vision of excellence for the library and eLearning.

This paper focuses on a case study that uses customer feedback to change acquisitions and cataloguing processes. The case study draws on Customer Value Discovery research undertaken in two universities, one in Australia and

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the other in the United Kingdom. The paper builds on a presentation to the 'Exploring Acquisitions Conference' held in Cambridge in April 2007. It focuses on and highlights the actions that were undertaken as a result of the research that had impacts on acquisitions and cataloguing.

Using external facilitators, Enzyme International Aust. (http://www.enzymeinternational.com.au/), the analysis of data gathered from Customer Value Discovery research has been used to drive change at Deakin University Library, in Australia, and Nottingham Trent University, in the United Kingdom.

Objectives

The aim of the research was to gather data that would be used by management to ensure that service and resource delivery within the organisation are aligned to the actual needs of the customer. Evidence from the research regarding perceptions of current value delivered, when compared to what is desired by the customer, provides a gap analysis.

By ascertaining hierarchies of Value and Irritation, priorities for action would be developed to inform operational planning, service standards and key performance indicators and individual work objectives.

Over time, having implemented changes as a result of the customer value discovery research, it is possible to re-test to check whether the service is increasing customer value, reducing customer irritation, and closing the gap between actual and desired performance against the original datasets.

Methods

The Customer Value Discovery Process
Customer Value Discovery (CVD) research was used to gather data on customer needs. CVD is based on a very simple model, the Hierarchy of

Value. On its continuum, it describes the potential experiences that any interaction between a customer and service provider can provide.
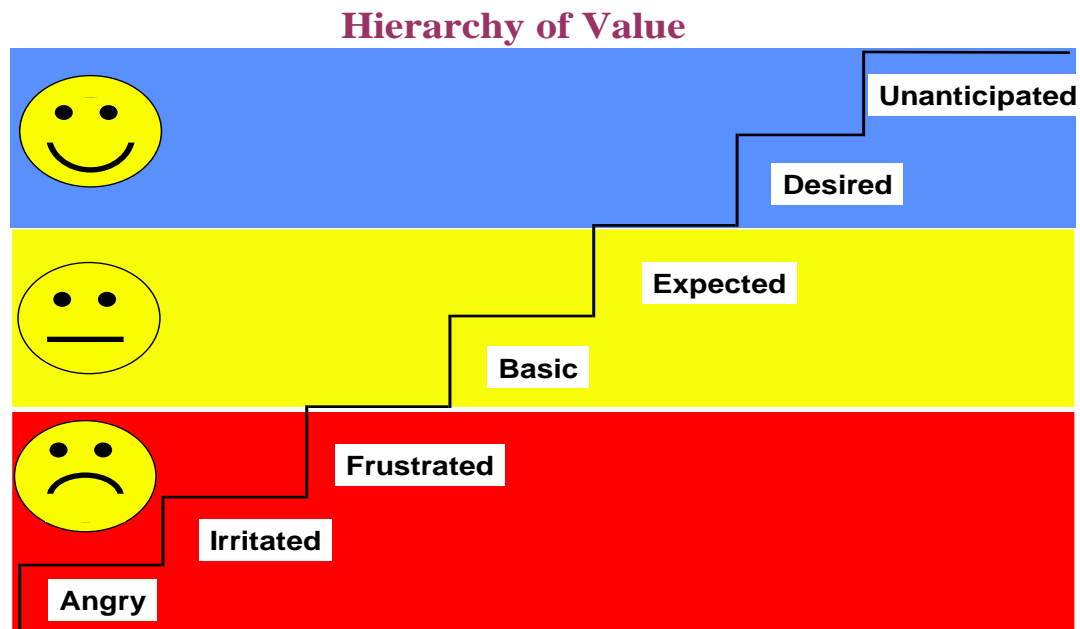
Hierarchy of Value

Figure 1: Hierarchy of Value ©: Enzyme International (Aust.)

In a service industry, such as a library, all interactions, either with a staff member or a resource (e.g. book) or service (e.g. web page) can both satisfy and irritate a customer at the same time. The aim is to **consistently** deliver on the **basic and expected** services, and to deliver **desired and unexpected** services (but not at the expense of neglecting the basic/expected services) and doing these without causing irritation to the customer. While simple to explain, it is not so easy to implement on a consistent, whole of service basis.

Customer Discovery Workshops

The process of customer value discovery research involves holding 'customer discovery' workshops with customer/market segments (undergraduate on-campus students; post-graduate researchers; distance learners; mature students; academic staff etc) to ascertain, initially, what irritates them about existing services and resources and, secondly, how they would define an excellent service. The participants in the workshops are then asked to rate their perceptions of the current services against the ideal service levels.

Consolidation and Observation

After all the customer workshops are held, facilitated Consolidation and Observations workshops are conducted with staff who observe the workshop and library managers. Through the Observation and Analysis workshop, staff delve into the individual customer comments that have been thematically arranged and given an overarching descriptive heading. This way everyone is clear of the meanings and intentions, even if they did not personally attend a particular workshop.

A diagram of the process follows.
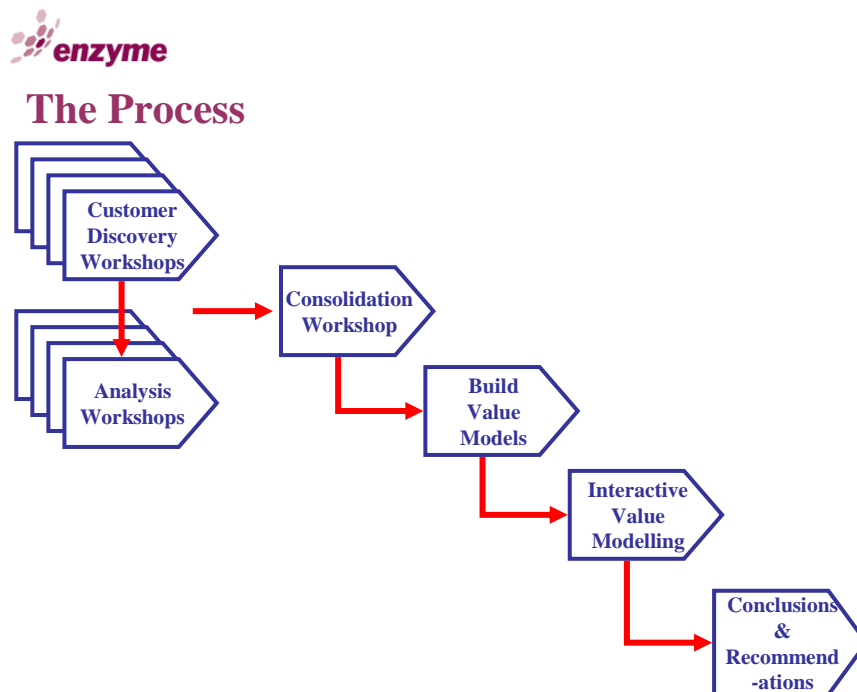
Figure 2: Customer Value Discovery Process

At the Consolidation workshop, staff consider the combined results of all the customer discovery workshops that have been held. Through a process called Interactive Value Modelling, which uses mathematical modelling software to predict changes in overall satisfaction, top level discussions are held on the likelihood of adding value and reducing irritation by interventions that the library staff consider possible. The aim is to reduce irritation and increase value. As many irritations have a corresponding value, by focusing on

reducing irritations, there is an immediate added advantage of increasing value at the same time.

Interactive Value Modelling

Following this, Enzyme International facilitate Interactive Value Modelling whereby all the staff and manager participants model how value (or satisfaction) is improved and irritations reduced if certain actions are taken. This enables priorities to be established for further action, based on top level assumptions about how to respond to the customer feedback. Further details about this process are described by McKnight (2006, 206-216).

This process was conducted over a number of years (1996-2003) at Deakin University, Australia with a number of different customer segments and in 2005 at Nottingham Trent University (NTU) with undergraduate on-campus students and academic staff. Over 70 students and 50 academic staff participated in the workshops, which were held at NTU's three campuses, with one-on-one interviews of academic staff conducted at the smallest campus. These interviews used the same workshop methodology and workbook to give appropriate input.

Longer term impact was assessed at NTU, using a student satisfaction survey. The survey was completed by 3492 students in 2005 and 5611 in 2007. These surveys, the first being two months after the customer value discovery research was undertaken, enabled comparison of the data from the CVD process with the formal survey. There was close alignment; however, the CVD process provided more detailed data on which to act. The NTU student satisfaction surveys also enabled a longitudinal study to ascertain whether satisfaction had improved as a result of initiatives introduced after the CVD.

Results

Rather than provide individual results for the whole process at each institution, for the purposes of this paper the results of the workshops held at both

universities are amalgamated in order to illustrate the type of evidence obtained and how it was used.

Values and Irritations

The Customer Value Discovery research provides hierarchies of Values and Irritations.

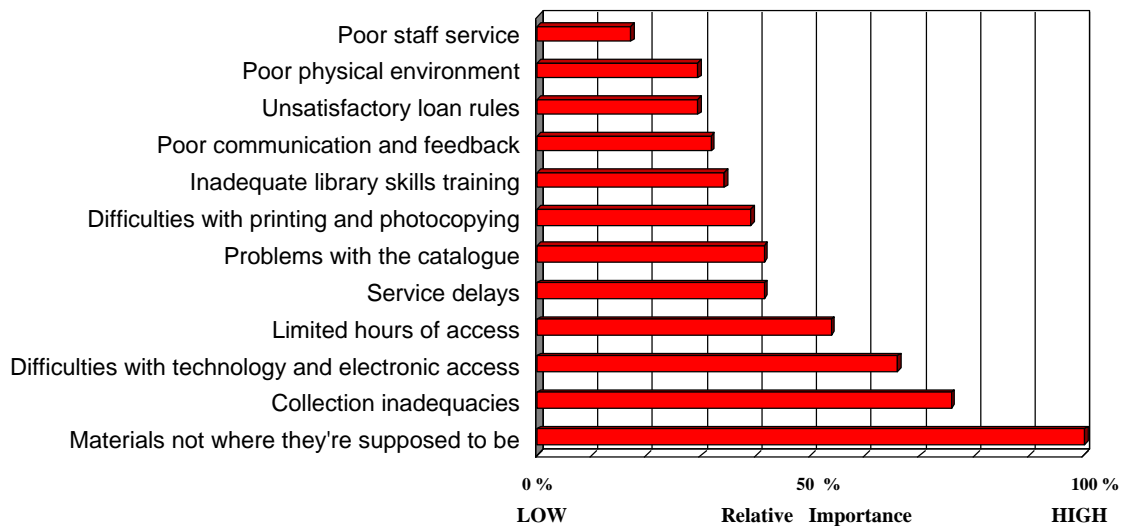**Hierarchy of Irritants - Students**

Figure 3: Sample Graph 1 – Hierarchy of Irritants, Students

The highest value or irritation is given a value of 100% and the others are expressed as a percentage of the highest ranked item. Graphical examples of the Hierarchy of Irritations and Hierarchy of Irritation – Gaps are presented in figures 3 and 4. Figure 3 shows that the lowest irritation to students is poor staff service and the highest are materials not being where they are supposed to be.

The Gaps charts show the differences between how customers voted, and how the staff observing thought the customers would vote. Figure 4 illustrates that the views of the librarian observers did not match up with the views of the

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students in the majority of areas. For example library staff believed that poor staff service, difficulties with printing and photocopying and electronic access would be much more irritating than students actually perceived them. In contrast students were much more irritated by materials not being where they were supposed to be.
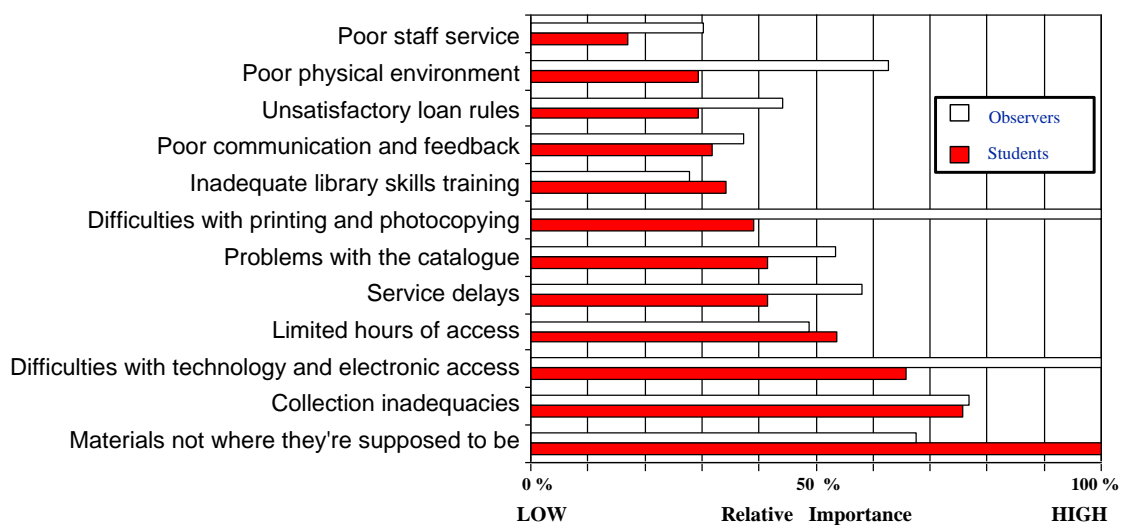
Hierarchy of Irritants - Students - Gaps

Figure 4: Sample graph – Hierarchy of Irritants, Students, Gaps

As part of the process similar graphs are produced for Hierarchy of Irritation – Frequency; Hierarchy of Irritation – Frequency Gaps; Hierarchy of Irritation – Pareto Chart; Hierarchy of Values; Hierarchy of Values – Gaps; Hierarchy of Values - Performance; Hierarchy of Values – Performance Gaps; Hierarchy of Values – Pareto Chart. However these are not shown here.

Changing Acquisitions and Related Processes

The relevant consolidated Values and Irritations, in relation to changing acquisition and cataloguing processes, from the two university libraries are:

Values	Irritations
Easy access to materials where and when I need them	Cannot find materials I need; Problems with the catalogue;
Comprehensive, available, relevant resources	Inadequacy of the collection and its management
Proactive partnership between academic staff and librarians	Inadequate academic liaison and communication; Lack of training & support when I need it
Availability of reliable up-to-date technology and facilities	Unreliable, limited IT
Opening hours that meet user needs	Inadequate opening hours
User friendly loans policies and procedures	Restrictive & difficult loans policies and practices

Table 1: Consolidated Values and Irritations

Values and irritations related to loan policies and opening hours, while seeming unrelated to acquisitions and cataloguing, indeed are. This is because restrictive loans of short loan/reserve collection items, decisions regarding acquiring (or not acquiring) multiple copies of in demand books, and providing (or not providing) digital access to resources are all about acquisitions and cataloguing policies and practices.

Basic Transactions

The responses to this customer feedback are also a combination of actions that were undertaken (or are planned) as a result of the research. Not every action mentioned can be attributed to both libraries.

Referring to the diagram of Hierarchy of Value (figure 1), staff identified the need to provide a consistent level of service for all customers, on all campuses. It was evident that some inconsistency in service was due to the availability (or not) of staff on a particular campus, and irritations could be tied to problems of maintaining workflows at busy times, with failure to do so resulting in backlogs or failure to deliver at all. Decisions were taken to

automate 'basic transactions' that would leave valuable staff time to undertake planning and delivery of value-adding services. Automating some transactions, it was found, would also reduce identified irritations.

Automation of Basic Transactions

Table 2 summarizes the automated services that were implemented following the CVD process. It was estimated at one of the libraries, to cover between 70%-80% of the work in a traditional library 'technical services' department.

Initiative	Outcome
Online selection basket for collection development	This enabled academic staff to use online selection services and easily mark up items for consideration for purchase. The request lists were automatically sent to Acquisitions saving time, and providing accurate machine readable records for creation of orders.
Electronic Data Interchange (EDI) for ordering, invoicing and payments	The introduction of EDI enabled significant efficiency gains. The elimination of: paper records, postage and handling costs and time delays, manual payments of orders etc benefited the library, the finance department and the vendor. It also sped up the acquisitions process, reducing the time from order to shelf.
Copy Cataloguing	Accepting copy cataloguing records with book items reduces time in the cataloguing department, reducing the time from receipt to shelf. Freeing up time enabled cataloguers to focus on cataloguing grey literature, thus making more items accessible to customers.
Shelf Ready Books	Transferring this end processing activity to the supplier cut out a basic, but non-value adding activity from the technical services operations.
Exception claiming rather than manually checking 'everything'	With a highly automated acquisitions system, it is possible to leave the system to do the checking. This required a modicum of cultural change, as the past practices of 'checking' were entrenched, and staff had to 'let go'. However, the standard of service did not slip.
System reporting and statistics	Cessation of maintaining manual spreadsheets freed up time. System generated reports and graphs were regarded as trusted.

Vendor records used as order slip	Academic staff did not have to fill in order forms; the order slip had all the right information; and acquisitions staff no longer had to decipher difficult handwriting
System alerts for new publications	Academic staff and liaison librarians were pushed information on new items, thus removing their need to schedule dedicated time for checking
Filters used to create individual staff profiles	Academic staff and liaison librarians were pushed information on new items, thus removing their need to schedule dedicated time for checking
Approval Plans; Blanket Orders; Standing Orders	These are quick ways to ensure ordering of important new works; it eliminates the chance of missing a 'must have' publication that matches a profile; and saves significant time in selecting when the library collects 'everything' in a specific discipline/genre/category
Ability to track orders online	Academic staff and liaison librarians can check the status of their order without requiring acquisitions staff intervention
Order alerts when an item arrives	Academic staff and liaison librarians can be advised without requiring acquisitions staff intervention
New order lists/books just received lists	Academic staff and liaison librarians can be advised without requiring acquisitions staff intervention

Table 2: Initiatives implemented following the CVD process

By changing the way these transactions and services were delivered, the library service was able to deliver a consistent level of service, with reduced time frames, without requiring additional staffing resources. Many of the irritations that had been identified were eliminated, thus improving customer satisfaction. Some innovations, such as Electronic Data Interchange (digital orders, invoices, payments), revolutionised the handling of what had previously been manual and time consuming transactions. However, a number of changes had to be negotiated with other parts of the organisation (in the case of EDI, with the Finance Department, and a check with the Internal Auditor, so as to ensure appropriate checks and balances and audit trail would be provided) and others with library staff. Cataloguers, in particular, were involved in decision-making regarding copy cataloguing, and liaison and acquisition librarians in relation to Blanket Orders and Approval Plans.

Value Adding 'Wow' Services

Implementing many automated backroom processes freed up professional time both in technical services operations and in academic liaison. As a result, value adding services could be implemented without requiring additional resources. Those implemented are summarized below.

A more proactive collection development programme could be implemented. Vendor lists to aid recommending and ordering were used; alerts for new publications reduced an irritant of 'not having time to search for new items' but also made collection development more efficient. Filters to deliver advice on new publications in identified disciplines, together with approval plans and blanket orders, meant that the collection was enhanced with little additional effort on behalf of academic staff or liaison librarians.

A major thrust in both libraries concerned Reading Lists. By providing liaison librarians with more time in their working day (not just by making proactive collection development easier, but by implementing other changes as a result of the customer value discovery research in relation to inquiry services, for example), they were able to conceive and implement projects relating to improving access to reading list material. Innovations that resulted included digitising short loan items (conforming to the relevant copyright laws), making these items available 24 x 7 to students and removing their need to come to the physical library. Not only were students delighted with the improved service, with links imbedded from the Virtual Learning Environment (VLE) as well as from the library catalogue and reading list module, but the physical space of the short loan collection was significantly reduced, freeing up much needed space for other purposes, and the labour requirement for managing the borrowing items was significantly reduced, freeing up staff resources for other value-adding endeavours.

Students, in particular, were demanding more digital resources in response to making information resources available 'when and from wherever I need them'. Undergraduate students identified the need for more full-text journal

articles rather than digital bibliographic citation services. They also wanted to make the searching of the myriad of e-journal collections more user-friendly. The result was not only more full-text e-journals, but the implementation of federated searching solutions that enabled the majority of digital resources to be cross-searched with a single search strategy. Further, linking the full-text search results with licensed resources provided by the library significantly increased access to valued information, thus adding value for customers (and reducing irritation). This also maximized asset utilization, in accounting terms, by making the very best use of resources that were already available to library customers.

The implementation of eBook platforms and services has also resulted in a value adding service in that books, as well as journal articles, can be available 24 x 7 should a reader so wish to access an eBook. The work of the National eBooks Observatory Project (JISC) will provide a number of online textbooks to the UK higher education community, which will provide significantly improved access to the chosen textbook resources in the four nominated disciplines for the duration of the trial. This could significantly reduce a major student irritation of 'not having access to enough textbooks'.

A not-so value adding service today, but was at the time, was the purchase of enhanced cataloguing records providing Table of Contents information and thumbnail images of book dust jackets. This innovation resulted in contents of books and conference proceedings, in particular, being more accessible to customers, because catalogue access had been expanded to include chapter headings and chapter authors.

Copy cataloguing may have taken work from librarians, but additional value adding services were identified to replace this work. Instead of focusing expertise on AACR11 cataloguing rules, their expertise was broadened to incorporate metadata standards for digital object repositories, a new value adding service that was identified as fulfilling an unmet demand of academic staff customers, in particular. In addition, as mentioned in the table of basic services, leveraging cataloguing expertise to make accessible special

collection resources and grey literature for which there are no copy cataloguing records provided a value-added service that previously could not be readily afforded. Not only did customers gain access to valuable resources via institutional digital repositories and special collections, the institution increased its reputation through its scholarly, unique and research-based collections.

A final value-adding service, which can be related to the impact of actions resulting from the customer value discovery research, was in the area of knowledge and information management. From the experience of listening to customers' desires and needs, and providing some space for, and encouraging, strategic thinking, the role of librarian in facilitating debate and action on institutional practices regarding knowledge and information management was an added bonus. In many ways, thinking about overall knowledge management was fuelled by identifying the need to provide digital object repositories for a variety of content types. The links become obvious: Customer Relationship Management (CRM) needs of the institutional *and* the relationship with virtual library reference services; help desk services, CRMs and library inquiry services *and* virtual reference services; protecting institutional intellectual property *and* the link to library managed copyright compliance systems. All these are examples of the inter-connectedness of library services and expertise with wider institutional issues and contexts.

Longer term impact and follow up

All the changes described did not happen immediately, but many quick wins were achieved. However, the sustained cultural change that resulted from listening to customers meant that innovation flourished and customer satisfaction improved.

Table 3 uses results from Nottingham Trent University's student satisfaction survey, conducted in 2007 and demonstrates that the library's satisfaction rating shows a marked increase in satisfaction levels. This can be attributed to the initiatives undertaken as a result of the detailed 2005 research.

	2005 % actively satisfied	2007 % actively satisfied	Change
Library website	73%	81%	+8%
Opening hours	70%	76%	+6%
Helpful and accessible staff	67%	74%	+7%
Access to printers/ photocopiers	55%	73%	+18%
Availability of study places	64%	73%	+9%
Availability of e-journals and databases	66%	70%	+4%
Range of e-journals and database	61%	69%	+8%
Availability of group study rooms	n/a	68%	n/a
Range of books	61%	65%	+4%
Range of printed journals	61%	64%	+3%
Availability of PCs in libraries	48%	63%	+15%
Noise levels	52%	62%	+10%
Training and support for students in using library facilities	57%	61%	+4%
Range of audio and visual materials	61%	59%	-2%
Availability of books and materials from reading list	47%	53%	+6%
Loan periods	52%	57%	+5%
Loan of laptops for in-library use	n/a	51%	n/a

Table 3: 2005-2007 Nottingham Trent University Library Student Satisfaction Survey Comparison

Discussion

Value/Uniqueness of the CVD Process

There are a number of aspects to the Customer Value Discovery research that set it apart from other quality and customer satisfaction surveys. Because of the following reasons, this style of gaining customer feedback is so valuable.

1. Library staff participate in the workshops as silent observers, but voting as they assume the customers will vote on irritations, frequency of irritations, values, and current performance. It is very powerful hearing

the comments directly from customers, and listening to their interactions with the facilitator, who draws out the meaning behind the comments being offered. This is a very personal, and at times emotional, experience especially when a staff member is confronted by adverse comments on services that they are involved in or responsible for. Compare this to receiving results from the university-wide student satisfaction surveys. Although gaining feedback on specific library services, as dictated in the survey, the data is devoid of any immediate, personal impact upon library staff. It is far removed from the experience of actually hearing what students were thinking when they made their comments in the Customer Value Discovery workshop.

2. The feedback is generated in the terms used by customers as the facilitator starts with a blank piece of paper. The process involves completing workbook exercises that use open questions, visioning a future that is successful, and then prioritising the major values and irritants into thematic sets. This way customers decide what services, resources, values, and irritants they want to consider, and are not led by librarians' and library service assumptions about what is important.

3. By using workbooks, every participant in the customer value discovery workshops has an equal voice. The participants work in silence in the workbook and prioritize their own comments, which are then transferred to sticky notes and used to create thematic sets of issues. This way, no one individual is able to dominate the process and discussions.

4. The process of analyzing and consolidating feedback from all workshops is another opportunity to engage staff in the change process. All observers plus managers participate to ensure understanding about customer perceptions, and to gain buy-in to follow-up actions. It becomes a change process that is influenced by customers and led by staff responsible for delivering services and resources. It is not a management- directed approach to change but

staff initiated change and, as such, has a greater chance of success because of the personal and local commitment to changes being suggested.

It is the combination of these factors that constitute the building blocks for delivering customer value. Change management is more easily facilitated because staff: are given the opportunity to truly understand the needs of customers; understand that their assumptions about what customers require or how customers rate the performance of the library is not always accurate; and are given the chance, through active engagement and project work, to influence how the library responds to the customer value discovery research. As a result of the process, staff are more likely to be committed to making changes in their own work practices to achieve reduction or elimination of irritants, and to increase value-adding services and resources.

Cultural and Organisational Change

By automating many basic transactions and introducing services because of the power of technology (such as new title alerts), many irritations were eliminated and, in some cases, the resultant service was considered 'wow' for a while. The problem, if it can be called that, of consistently delivering on 'value adding' services, is that these, over time, are no longer considered as 'wow' and become expected, basic services. So the bar is always being lifted on delivering value-adding and unexpected service delivery delights.

The process of engaging staff as observers in the customer discovery workshops, and involving an even larger number of staff in deciding what actions can be made to reduce irritation and add value as a result of the customer feedback, has the impact of encouraging 'change seeking' (Wilson, ongoing; Pieters and Young, 1999) behaviour, which is a nice way of describing continuous quality improvement, were staff are constantly on the lookout for new or better ways of delivering value to the customer. This is very important because, customer expectations are always changing in response to the wider environment and their expectation of service delivery

increases as they experience other, but related services. What is value adding today will be basic/expected in the future.

Had implementation of changes and efficiencies meant an immediate reduction in staffing levels, the process would likely have failed, as there would be too much fear and distrust to engage in the process of customer consultation. Therefore, it is important from the outset to advise staff about the parameters of the exercise. In both cases, staff were reassured that no redundancies would result but that, over time, it was anticipated that staffing levels would either reduce or that the focus of staffing would change. When vacancies arose, these were assessed in regard to the implementation of the overall plan of action that had been developed in the light of the customer value research. For instance, efficiencies in technical services meant savings could be realigned to providing more value-adding services in customer facing services. The implementation of self-service technology enabled the staffing budget to move from circulation attendants to liaison librarians.

The need to let go of some long-undertaken practices, as identified before, was challenging. However, site visits to places that had changed similar practices was a great way of reassuring staff that dire outcomes were unlikely, for instance, if manual checks for outstanding orders were not undertaken. It was found that most items were received from the supplier within a reasonable time and automatic alerts at, say 60 days overdue, were sufficient to identify a problem item.

Similarly, different work, and often more professionally stimulating work, materialised to fill newly created gaps in the working day. For example, cataloguers were professionally challenged with coming to grips with metadata as well as traditional cataloguing rules.

Some people are adverse to change. Therefore, it was necessary to provide staff development, especially in regard to the psychology of change management (to cope with change), customer service (to ensure the needs of the customer are foremost), and team working (to participate fully in project

work, often across organisational boundaries to identify ways to add value and reduce irritation). Most staff welcomed the opportunities provided to gain additional skills.

Breaking down organisational silos was another outcome of the customer value discovery research. The staff and students involved in the customer value discovery workshops do not see discrete services providers involved in the service chain. They do not see academic staff requesting a book, a liaison librarian approving the order, an acquisitions assistant creating the order, the clerk who receives the items delivered by the supplier, the cataloguer, end-processors or shelvers in the value-adding chain of getting a new book on the shelf for loan. They simply see 'the library' or more likely 'the university'. Therefore, the importance of teamwork in facilitating services that do not irritate and that add value is a key to success. Proactive partnerships developed across the library's different departments, and within the academic community, as sharing of knowledge, expertise and understanding increased as a result of project work that resulted from customer value discovery research exercises.

An unanticipated result of these exercises has been the identification of new ways of working that have meant more organisational change, as isolated workflows, when taken as a combined process map of service delivery, identified better ways of working. For instance, separate teams of staff working on books and journal orders were merged into a multi-skilled team in one library.

Conclusions

The examples given in this paper represent Evidence-Based Practice at work. The CVD process was conducted over a number of years at Deakin University, from 1996 – 2003 with different customer segments, and in 2005 at Nottingham Trent University with undergraduate on-campus students and academic staff. The paper illustrates how information was obtained from

customers and how it was used to implement change in cataloguing and acquisitions. Many of the other customer facing changes that resulted from the same research and were implemented by the customer services teams of the two libraries are not covered here and will be the subject of another paper.

Would these changes have happened without Customer Value Discovery research? In some instances, the answer would have to be 'Yes'. However, at what pace would these changes have been achieved? The contention in this paper is that the process of engaging customers and library staff in focused activities aimed at delivering customer value considerably speeds up the process of change.

In other instances, the answer is perhaps a 'Maybe' or more likely a 'No'. The pain of listening to customers describe a less than optimal service, and who describe situations that, when explained from a customer perspective, make no sense at all but fall into the category of 'we have always done it this way' are profound experiences that challenge every practice, not just the ones critically described. 'Sacred cows' can be challenged.

Success breeds success. In the United Kingdom National Student (Satisfaction) Survey, NTU improved its overall ranking in the library-related section of the survey from 47th overall in 2006 to joint 34th in 2007, with a score of 83% satisfaction, against the 2007 sector average of 78%. Receiving significantly improved customer satisfaction ratings are very powerful tools to encourage more innovation in service delivery. Staff who receive tangible and positive feedback on the impact of their change strategies are more likely to continue to strive for service improvement.

The process of measuring customer satisfaction and gauging customer perceptions of value and irritation is an ongoing process. As already stated, what once were 'wow' services become basic services, so the bar continues to rise as time goes on. Further research to define the values and irritations for specific customer segments (for example, off-campus students, part-time students, research staff) as opposed to broad customer groups

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(undergraduate on-campus students, academic staff) has led to more detailed information on which to base decisions regarding future service improvements.

The techniques of customer value discovery described are unusual in the library and service environments as the process was initially envisaged for commercial, profit generating organizations (Austin, date). The great majority that use this technique are large financial institutions and the retail sector. Therefore, the use of this in a not-for-profit and service organisation has been groundbreaking.

The optimal situation for any library director, any director in fact, is to have staff who actively seek change, not for change sake, but to add value to customers and to reduce irritations. There will always be irritations, and as the environment changes, services have to respond to changing needs, expectations and possibilities. Customer Value Discovery research can be used as a tool for transformational leaders, as it enables a vision of excellence to be articulated, and engages staff to respond to feedback and work towards creating the future vision of excellence.

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Paper 6

S. McKnight, 2008

Are there Common Academic Library Customer Values?

Abstract:

Objectives: This paper provides answers to the following questions: Is there a correlation between what library customers value and the questions asked in benchmarking satisfaction surveys? Is there a core set of academic library customer values? Are there differences between what academic library customers value in Australia when compared to their counterparts in England? Do library customer values change over time?
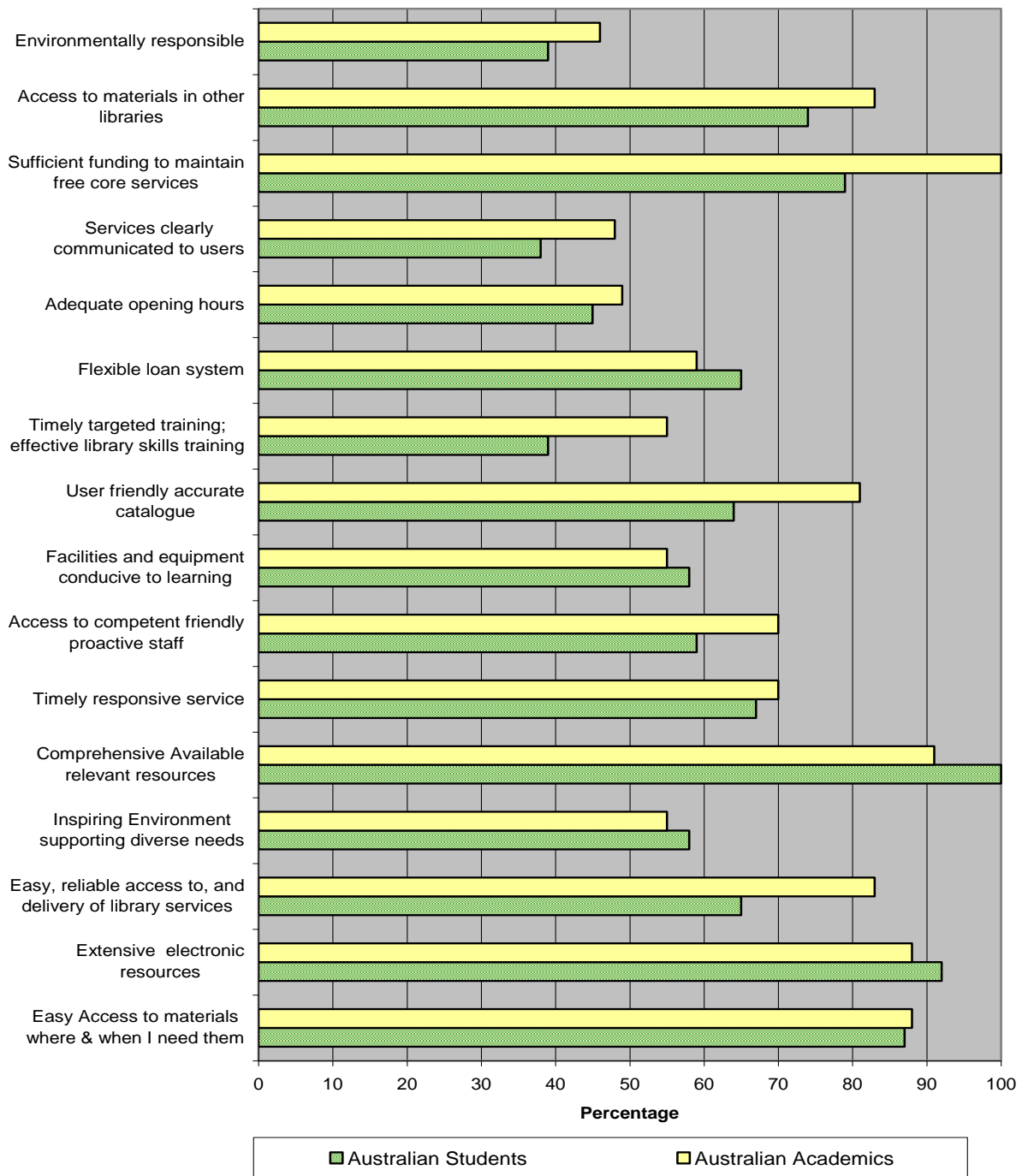
Methods: The results of two similar university libraries' Customer Value Discovery research are compared to each other, and also to the question set in the LibQUAL+™ survey. As the Customer Value Discovery research was undertaken six years apart, the results are compared to see if there has been change over time.

Results: Academic library customers identified a core set of values, and these values mapped reasonably well to the LibQUAL+™ instrument. However, there were unique value factors identified by the various customer segments that did not map. Some questions in LibQUAL+™ were more detailed in their exploration of library staff attributes than customers identified in their value proposition. Customers identify their values without reference to library jargon.

Conclusions: Customer Value Discovery and LibQUAL+™ are both valuable management tools that identify services and resources of importance to library customers.

1. Introduction and Study Problem

The effective and efficient management of a library service requires maximising return on investment, not necessarily in a commercial sense, but by being certain that budget allocations and staff deployment are targeted to areas that will deliver value to library customers. Therefore, it is incumbent to know what services customers value to ensure that all decision making is

based on data and not assumptions. But do we really know what library customers value?

Library user satisfaction surveys are used internationally to gauge the performance of a library. Tools such as LibQUAL+™ Service Quality Survey and the Rodski Student Satisfaction Survey are used in Australia to measure student satisfaction with university library services, with the former in wide use in the higher education sector in the United Kingdom. These survey instruments use a suite of common questions that enable benchmarking of library services within the sector to ascertain how well one is performing against others. While this can be very useful, the question remains whether a service is delivering value to its customer base.

There is very little in the library-related professional literature about values per se, although Warnaby and Finney (2005) write about '*creating* customer value' at the British Library. Is there a correlation of what library customers value and the questions that are asked in benchmarking satisfaction surveys? Is there a core set of academic library customer values? Can managers rely on the key areas identified in long standing and internationally used benchmarking instruments to guide decision-making and planning? Are there differences between what academic library customers value in Australia when compared to their counterparts in England?

This paper answers these questions by exploring the similarities and differences between two sets of library customer values: one for a university library service in Australia (Deakin University) and the other in England (Nottingham Trent University). Hofstede (1983) groups Australia and Great Britain together with Canada, New Zealand, USA and Ireland. Hofstede's research indicates that Australia and Great Britain have almost identical cultural values. This research will identify whether there are significant differences based on customer values in the two countries.

The Customer Value Discovery research data used to undertake these comparisons was gathered using the same methodology but the research was
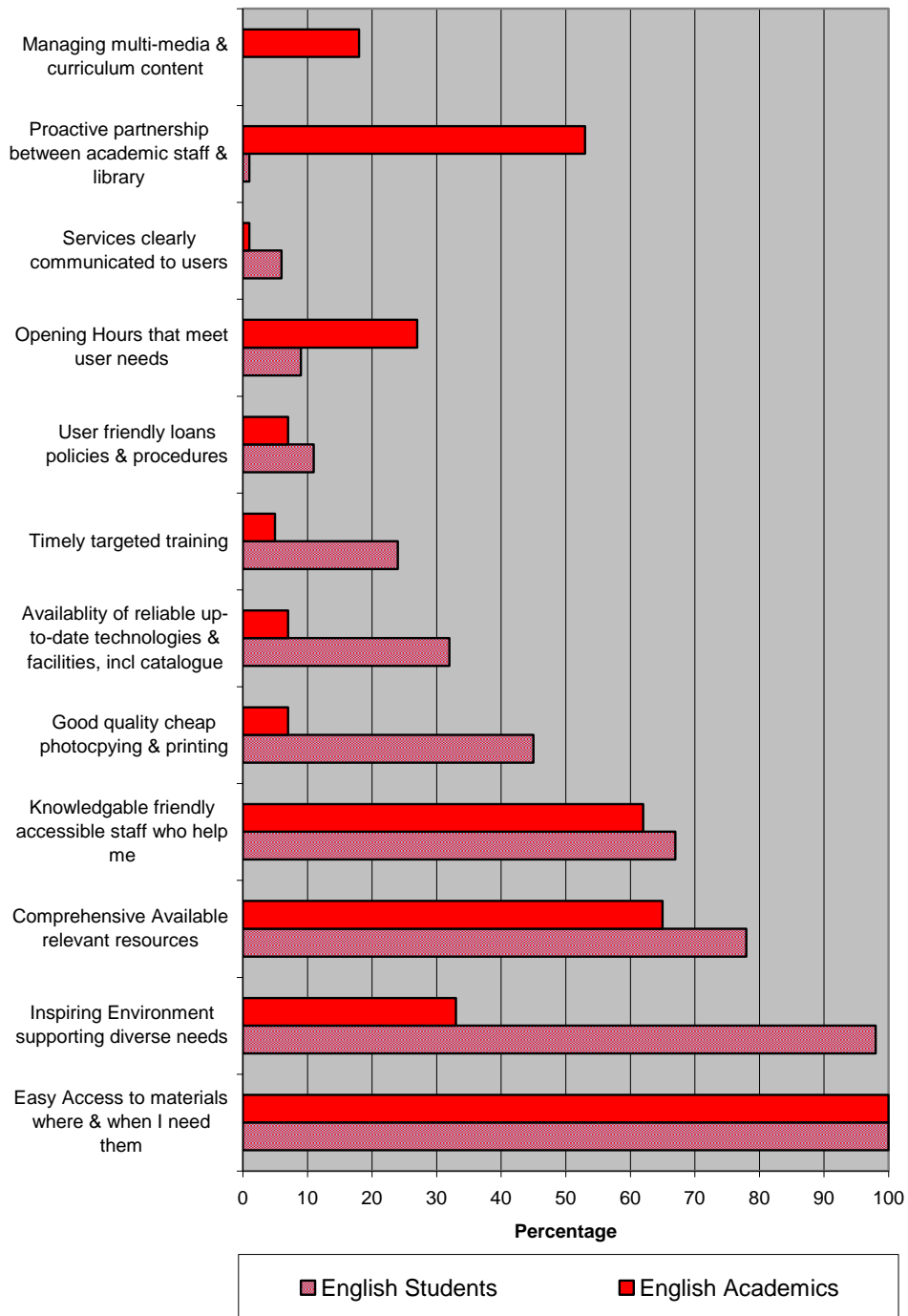
undertaken some years apart (1999 in Australia and 2005 in England). The impact of the passage of six years will also be examined in light of the fast pace of change occurring in the library and information sector.

Below are the Hierarchies of Values for both university library services. The highest priority value is shown as 100% and the other value factors are weighted in accordance with importance when compared to the highest value.

Comparison of University Library Value Factors – Australia

A horizontal bar chart comparing Australian Students (green) and Australian Academics (yellow) across the following factors (Percentage, 0–100):

- Environmentally responsible
- Access to materials in other libraries
- Sufficient funding to maintain free core services
- Services clearly communicated to users
- Adequate opening hours
- Flexible loan system
- Timely targeted training; effective library skills training
- User friendly accurate catalogue
- Facilities and equipment conducive to learning
- Access to competent friendly proactive staff
- Timely responsive service
- Comprehensive Available relevant resources
- Inspiring Environment supporting diverse needs
- Easy, reliable access to, and delivery of library services
- Extensive electronic resources
- Easy Access to materials where & when I need them

Legend: ■ Australian Students □ Australian Academics

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Comparison of University Library Value Factors – England

English Students   **English Academics**

Chart categories (top to bottom):
- Managing multi-media & curriculum content
- Proactive partnership between academic staff & library
- Services clearly communicated to users
- Opening Hours that meet user needs
- User friendly loans policies & procedures
- Timely targeted training
- Availablity of reliable up-to-date technologies & facilities, incl catalogue
- Good quality cheap photocpying & printing
- Knowledgable friendly accessible staff who help me
- Comprehensive Available relevant resources
- Inspiring Environment supporting diverse needs
- Easy Access to materials where & when I need them

X-axis: Percentage (0 to 100)

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2. Methodology

Both universities have multiple campuses, large student populations (over 25,000) and undertake research and teaching. Thus the resultant Hierarchies of Value for each library service offered the opportunity to compare the values for the respective customer groups. Over a period of years at Deakin University, a greater number of different customer segments were surveyed than is the case at Nottingham Trent University. However, to facilitate the comparison of values, only research data obtained from the same segments (on-campus undergraduate students; and academic staff) have been analysed here.

A brief description of the methodology is provided is warranted so as to be able understand the difference between this and the LibQUAL+™ process.

Multiple facilitated Customer Value Discovery workshops are held for each unique customer segment. At each workshop, participants come from the same basic group (e.g. undergraduate students; postgraduate coursework students; postgraduate research students; off-campus students; international students; etc).

In the first part of the customer discovery workshops, the participants use a workbook sheet to identify and rate, in silence and individually, the irritants that they perceive about the existing services. This way, the issues are identified but there is no opportunity for "group think" and "one-upmanship" relating to problems experienced because there is no open discussion of the irritants in the workshop. These comments are gathered immediately for analysis after the workshops.

Unlike surveys with set questions, there are no preconceived ideas about what is important to customers. The participants are lead through a visioning exercise, where they are asked to imagine a time, three to five years on, when they have been successful in their endeavours at university, and they are asked to identify what services, provided by the library, which helped them achieve their success. Workbooks are used to capture individual thoughts

and ideas, and then participants' top issues/values are captured into thematic sets using an affinity diagram (Six Sigma), which makes meaningful lists of similar ideas that resulted from the participants' visioning exercise. The facilitator then seeks a heading for each theme set from the customers present. The headings are then keyed into a voting response system and wireless keypads are used to capture the customers' responses (votes) by pairing each heading/Value with all the others through the forced pair comparison function of the software. This leads to the identification of the products/services in a hierarchy of importance i.e. Hierarchy of Value. The result is a defined set of values that inform decision making. The participants also vote on their perception of current performance of the identified Values, giving a gap analysis on importance and performance.

The customers defined their own headings for the value and irritant factors at the workshop attended. There were multiple Customer Value Discovery workshops - at least three workshops for each segment (undergraduate on-campus student and academic staff) at each university – so facilitated consolidation workshops were held at each university to bring the value and irritant factors together for each customer segment. Library staff who participated in the Customer Value Discovery workshops provided an overall heading for each group of Values and Irritants. As a result, some of the headings are repetitious where the thematic sets covered the same concept. However, the headings endeavoured to capture the essence of what the customers were saying, using the customers terms to describe the service, not how the library staff interpreted the comments. At all times at a consolidation workshop, if there was doubt as to the underlying concepts, the individual comments of the Customer Value Discovery participants was checked for clarification.

Throughout the workshop, library staff participate in the voting exercises, voting as they believe the customer will vote. In this way, a further gap analysis is developed between customer expectations and staff assumptions. This data is powerful for leading cultural change amongst staff. The aspect of

the Customer Value Discovery process has been covered elsewhere. (McKnight, 2006)

Albrecht and Austin (1999) describe value modelling as "a special method for discovering the *critical success factors* for any venture by eliciting views of a selected group of experts in a structured feedback meeting." They go on to say that it is often used for customer research where the experts in the feedback meeting are the customers. Although extensively used in the commercial sector, customer value discovery, which is based on value modelling, has not been widely used in not-for-profit service organisations to identify customer perceptions of service excellence.

In both instances (Deakin University and Nottingham Trent University), the workshops for the two customer segments in the research study were held in the same period of time. Customer Values were ascertained from undergraduate on-campus students and academic staff at Deakin University in 1999. Customer Values were ascertained from undergraduate on-campus students and academic staff at Nottingham Trent University in 2005. A perceived weakness of the research methodology is the six year gap between the Australian and English Customer Value Discovery workshops. However, the interruption provides a window in which to compare if there are significant changes in the perceptions of academic library services over time. As the same methodology and a common facilitator were used in all cases, the outcomes (Hierarchies of Value and Irritation) are comparable.

A diagram of the Customer Value Discovery process follows.
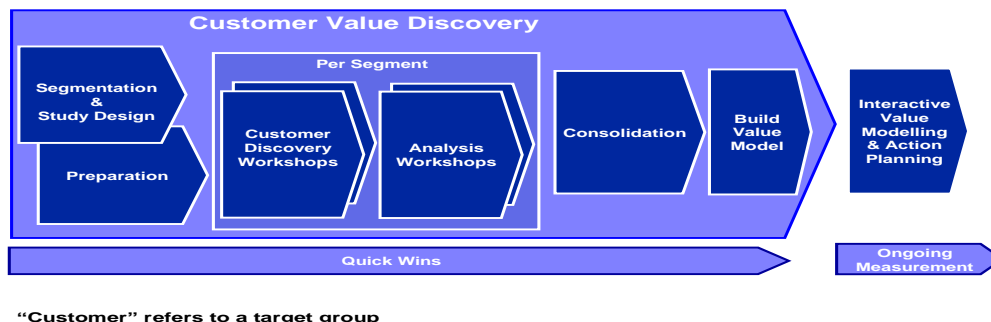
Diagram 1: Customer Value Discovery Process © Enzyme International (Aust.)

By way of background, in addition to Customer Value Discovery research, Nottingham Trent University library has undertaken LibQual+™ benchmarking. Deakin University library has undertaken Rodski Customer Satisfaction surveys. During the research periods, the author was the library director at each institution.

3. Findings and Observations

The following tables have been constructed from the consolidated workshop data for the four customer segments: English and Australian on-campus students; and English and Australian academic staff. The tables use the LibQUAL+™ headings and the customer Values and Irritations are noted where there is a correlation to the LibQUAL+™ question. Note: Customer defined Irritants have been included in italics.

The value factors were largely consistent between Australia and England. However, there are different priorities attached to the various factors in the Hierarchies of Value. It is important to note the *descriptions* accorded the customer values when compared to the LibQUAL+™ questions. The customer values use a terminology that reflects what the customers were describing in the various workshops and is devoid of library jargon.

3.1 Information Control

This table maps the Values and *Irritants* provided by the library customers as they relate the LibQUAL+™ heading of 'Information Control'.

Table 1. Comparison of Customer Identified Values with 'Information Control'

LibQUAL+™	England Student	Australian Student	England Academic	Australian Academic
Making electronic resources accessible from my home or office	Easy access to materials where and when I need them *Inadequacy of collection and its management*	Current, relevant, comprehensive collection Extensive electronic resources Easy, reliable access to, and delivery of, library services User friendly accurate catalogue *Collection Inadequacies* *Difficulties with technology and electronic access*	Easy access to materials where and when I need them Managing multi-media and curriculum content (VLE enabled) Comprehensive available relevant resources *Inadequate collection and its management*	Current, relevant, comprehensive collection Extensive electronic resources Easy, reliable access to, and delivery of, library services User friendly accurate catalogue *Collection Inadequacies*
A library web site enabling me to locate information on my own	Services clearly communicated to users *Inadequate academic liaison & communication*	Easy, reliable access to, and delivery of, library services Services clearly communicated *Difficulties with technology and electronic access* *Poor communication and feedback*	Services clearly communicated to users	Easy, reliable access to, and delivery of, library services Services clearly communicated *Difficulties with technology and electronic access* *Poor communication and feedback*
The printed library materials I need for my work	Comprehensive available relevant resources *Inadequacy of collection and its management*	Current, relevant, comprehensive collection Materials not where they are supposed to be *Collection Inadequacies*	Comprehensive available relevant resources *Inadequate collection and its management*	Current, relevant, comprehensive collection Access to materials in other libraries *Collection Inadequacies*
The electronic information resources I need	Easy access to materials where and when I need them	Current, relevant, comprehensive collection	Easy access to materials where & when I need them	Current, relevant, comprehensive collection

	Comprehensive available relevant resources *Inadequacy of collection and its management*	Extensive electronic resources Easy, reliable access to, and delivery of, library services *Collection Inadequacies*	Comprehensive available relevant resources *Inadequate collection and its management*	Extensive electronic resources Easy, reliable access to, and delivery of, library services Managing multi-media and curriculum content (VLE enabled) *Collection Inadequacies*
Modern equipment that lets me easily access needed information	Good quality cheap photocopying and printing Availability of reliable up-to-date technologies & facilities *Inadequate expensive photocopying & printing* *Unreliable & limited IT and AV*	Easy, reliable access to, and delivery of, library services Facilities and equipment conducive to learning *Difficulties with technology and electronic access* *Difficulties with printing and photocopying*	Good quality cheap photocopying and printing Availability of reliable up-to-date technologies & facilities *Inadequate expensive photocopying & printing* *Unreliable and limited IT and AV*	Easy, reliable access to, and delivery of, library services *Difficulties with technology and electronic access* *Difficulties with printing and photocopying*
Easy-to-use access tools that allow me to find things on my own	Availability of reliable up-to-date technologies & facilities *Unreliable & limited IT and AV* *Can't find materials I need* *Problems with catalogue*	Easy, reliable access to, and delivery of, library services User friendly accurate catalogue Facilities and equipment conducive to learning *Difficulties with technology and electronic access* *Problems with the catalogue*	Availability of reliable up-to-date technologies & facilities Easy access to materials where & when I need them *Unreliable and limited IT and AV* *Can't find materials I need* *Problems with catalogue*	Easy, reliable access to, and delivery of, library services User friendly accurate catalogue *Difficulties with technology and electronic access* *Problems with the catalogue*
Making information easily accessible for independent use	Easy access to materials where and when I need them User friendly loans policies & procedures *Restrictive & difficult loans policies and practices*	Current, relevant, comprehensive collection Extensive electronic resources Access to materials in other libraries Easy, reliable access to, and	Easy access to materials where and when I need them User friendly loans policies and procedures Opening hours which meet user needs *Restrictive &*	Current, relevant, comprehensive collection Extensive electronic resources Easy, reliable access to, and delivery of, library services Flexible loan

	Inadequacy of collection and its management *Can't find materials I need* *Problems with catalogue* *Inadequate opening hours (Library space issue/Access Issue)*	delivery of, library services User friendly accurate catalogue Flexible loan system *Materials not where they are supposed to be* *Collection Inadequacies* *Difficulties with technology and electronic access* *Problems with the catalogue* *Unsatisfactory loan rules*	*difficult loans policies & practices* *Inadequate collection and its management* *Inadequate opening hours* *Can't find materials I need* *Problems with catalogue*	system *Materials not where they are supposed to be* *Difficulties with technology and electronic access* *Collection Inadequacies* *Problems with the catalogue* *Unsatisfactory loan rules*
Print and/or electronic journal collections I require for my work	Comprehensive available relevant resources *Inadequacy of collection and its management*	Current, relevant, comprehensive collection Extensive electronic resources Easy, reliable access to, and delivery of, library services *Collection Inadequacies*	Comprehensive available relevant resources Easy access to materials where & when I need them *Inadequate collection and its management*	Current, relevant, comprehensive collection Extensive electronic resources Easy, reliable access to, and delivery of, library services

Library information resources, encompassing any resource (books, journals, multi-media resources) regardless of format, are the highest value factor identified by both English and Australian students and English academic staff. Australian academics rated library information resources as their 2nd highest value in 1999. These concepts are covered in four LibQUAL+™ questions: 'Print and/or electronic journal collections I require for my work'; 'Printed library materials I need for my work'; 'The electronic information resources I need'; and 'Making electronic resources accessible from my home or office'. The customers, when asked, are not differentiating between monographs and journals, and not especially between print and electronic.

The two English customer segments identified 'Easy access to materials where and when I need them' as the highest Value and 'Comprehensive available relevant resources' as 3rd on the Hierarchy of Value. In Australia, the highest value factor was 'Comprehensive available relevant resources' with 'Ease of Access' 3rd for the student cohort. The Australian customer cohorts explicitly identified 'Extensive electronic resources' and rated it very highly (2nd for students; equal 3rd for academic staff) whereas both English cohorts did not differentiate between electronic or print; they just wanted 'easy access', which implied, according to the individuals' comments, 24x7 access regardless of format.

The Australian students and staff rated highly the ability to gain access to resources in other libraries: both rating it 5th. The English cohorts did not mention this service.

The English academics identified 'managing multi-media & curriculum content' as a value, albeit 7th on the Hierarchy of Value. Curriculum resources, per se, were not mentioned by the other customer segments.

The concept of access also encompasses 'Services clearly communicated to users' because if customers do not know a service is available, then it does not exist. This Value was rated lowly by all customers: English students – 10th; English academics – 12th; Australian students – 16th; and Australian academics – 15th. However, to have been included on the Hierarchy of Value means that it is an important service. Although listed in the table above with the LibQUAL+™ web site question, no values were identified by customers that related specifically to 'A library web site enabling me to locate information on my own'.

The other LibQUAL+™ areas are covered: 'Modern equipment that lets me easily access needed information'; 'Easy-to-use access tools that allow me to find things on my own'; and 'Making information easily accessible for independent use'. However, the customers identified more specific values associated with modern equipment, specifically mentioning photocopying and

audio/video equipment (English students rating this 5th; Australian students – 11th; English academics – equal 8th and Australian academics – equal 11th). The customers also introduced the concepts of price and reliability as being of significance. The ease of use and accuracy of the catalogue were also highlighted by customers on both continents (English students – 6th; Australian students – 9th; English academics – equal 8th; and Australian academics – 7th).

Academics and students, regardless of country, identified 'User friendly loans policies & procedures' or 'Flexible loan system' as a Value associated with access to the information resources they need (English students – 8th; Australian students – 7th; English academics – equal 8th; and Australian academics – 10th). This concept was not explicitly covered in the LibQUAL+™ instrument.

3.2 Affect of Service

This table maps the Values and *Irritants* provided by the library customers as they relate the LibQUAL+™ heading of 'Affect of Service'.

Table 2. Comparison of Customer Identified Values with 'Affect of Service'

LibQUAL+™	English Student	Australian Student	English Academic	Australian Academic
Library Staff who install confidence in Users	Knowledgeable friendly accessible staff who help me *Unhelpful uninterested staff*	Access to competent, friendly, proactive staff	Knowledgeable friendly accessible staff who help me *Unhelpful uninterested staff*	Access to competent, friendly, proactive staff
Giving users individual attention	Knowledgeable friendly accessible staff who help me *Unhelpful uninterested staff* *Queuing for service*	Timely responsive service Access to competent, friendly, proactive staff *Service delays* *Poor staff service*	Knowledgeable friendly accessible staff who help me *Unhelpful uninterested staff* *Queuing for service*	Timely responsive service Access to competent, friendly, proactive staff *Service delays* *Poor staff service*
Library staff who are consistently courteous	Knowledgeable friendly accessible staff who help me	Access to competent, friendly, proactive staff	Knowledgeable friendly accessible staff who help me	Access to competent, friendly, proactive staff

	Unhelpful uninterested staff	*Poor staff service*	*Unhelpful uninterested staff*	*Poor staff service*
Readiness to respond to users' enquiries	Knowledgeable friendly accessible staff who help me *Unhelpful uninterested staff*	Timely responsive service Access to competent, friendly, proactive staff *Service delays* *Poor communication and feedback* *Poor staff service*	Knowledgeable friendly accessible staff who help me *Unhelpful uninterested staff*	Access to competent, friendly, proactive staff Timely responsive service *Service delays* *Poor communication and feedback* *Poor staff service*
Library staff who have the knowledge to answer user questions	Knowledgeable friendly accessible staff who help me *Unhelpful uninterested staff*	Access to competent, friendly, proactive staff *Poor staff service*	Knowledgeable friendly accessible staff who help me *Unhelpful uninterested staff*	Access to competent, friendly, proactive staff *Poor staff service*
Library staff who deal with users in a caring fashion	Knowledgeable friendly accessible staff who help me Services clearly communicated to users *Unhelpful uninterested staff* *Poor communication and feedback*	Access to competent, friendly, proactive staff Timely responsive service Services clearly communicated *Service delays* *Poor communication and feedback* *Poor staff service*	Knowledgeable friendly accessible staff who help me Services clearly communicated to users *Unhelpful uninterested staff* *Poor communication and feedback*	Access to competent, friendly, proactive staff Timely responsive service Services clearly communicated *Service delays* *Poor communication and feedback* *Poor staff service*
Library staff who understand the needs of their users	Knowledgeable friendly accessible staff who help me Proactive partnerships between academic staff and Library *Unhelpful uninterested staff* *Inadequate academic liaison & communication*	Timely responsive service Access to competent, friendly, proactive staff *Poor staff service*	Knowledgeable friendly accessible staff who help me Proactive partnerships between academic staff and Library *Unhelpful uninterested staff*	Access to competent, friendly, proactive staff Timely responsive service *Poor staff service*
Willingness to help users	Knowledgeable friendly accessible staff	Access to competent, friendly,	Knowledgeable friendly accessible staff	Access to competent, friendly,

	who help me *Unhelpful uninterested staff*	proactive staff Timely responsive service *Service delays* *Poor staff service*	who help me *Unhelpful uninterested staff*	proactive staff Timely responsive service *Service delays* *Poor staff service*
Dependability in handling users' service problems	Knowledgeable friendly accessible staff who help me *Unhelpful uninterested staff*	Timely responsive service Access to competent, friendly, proactive staff *Service delays* *Poor communication and feedback* *Poor staff service*	Knowledgeable friendly accessible staff who help me *Unhelpful uninterested staff*	Timely responsive service Access to competent, friendly, proactive staff *Service delays* *Poor communication and feedback* *Poor staff service*

The nine 'Affect of Service' questions relating to library staff in the LibQUAL+™ instrument are far more detailed about behavioural characteristics than how library customers describe, in their own terms, the library staff they wish to encounter. Library customers want knowledgeable, competent staff; 'friendly' is a positive behavioural characteristic identified; and 'accessible' and 'timely' introduce the notion of availability. The concept of 'proactivity' is also highlighted, both by the word being used in the Value descriptions and also implied in the Value description '… who help me'.

On the Hierarchy of Value, all cohorts rated staff highly, although the English related it higher than their Australian counterparts: English students – 4th; English academics – 3rd; Australian students – 10th; and Australian academics – equal 8th.

The English academics and undergraduate students identified the Value of a 'Proactive partnerships between academic staff and Library'. The individual comments from students under this heading were primarily related to reading list resources being available if such a relationship existed.

3.3 Library as Place

This table maps the Values and *Irritants* provided by the library customers as they relate the LibQUAL+™ heading of 'Library as Place'.

Table 3. Comparison of Customer Identified Values with 'Library as Place'

LibQUAL+™	England Student	Australian Student	England Academic	Australian Academic
Library space that inspires study and learning	Inspiring environment which supports diverse needs *Noisy & inappropriate study environment*	Facilities and equipment conducive to learning *Poor physical environment*	Inspiring environment which supports diverse needs *Noisy & inappropriate study environment*	Facilities and equipment conducive to learning *Poor physical environment*
Quiet space for individual work	Inspiring environment which supports diverse needs *Noisy & inappropriate study environment*	Facilities and equipment conducive to learning	Inspiring environment which supports diverse needs *Noisy & inappropriate study environment*	Facilities and equipment conducive to learning
A comfortable and inviting location	Inspiring environment which supports diverse needs *Noisy & inappropriate study environment*	Facilities and equipment conducive to learning *Poor physical environment*	Inspiring environment which supports diverse needs *Noisy & inappropriate study environment*	Facilities and equipment conducive to learning *Poor physical environment*
A haven for study, learning, or research	Inspiring environment which supports diverse needs Opening hours which meet user needs *Noisy & inappropriate study environment* *Don't like card access policies* *Inadequate opening hours*	Facilities and equipment conducive to learning Adequate opening hours *Poor physical environment* *Limited hours of access*	Inspiring environment which supports diverse needs Opening hours which meet user needs *Noisy & inappropriate study environment* *Inadequate opening hours*	Facilities and equipment conducive to learning Adequate opening hours *Poor physical environment* *Limited hours of access*
Space for group learning and group study	Inspiring environment which supports diverse needs *Noisy & inappropriate study environment*	Facilities and equipment conducive to learning *Poor physical environment*	Inspiring environment which supports diverse needs *Noisy & inappropriate study environment*	Facilities and equipment conducive to learning *Poor physical environment*

The five LibQUAL+™ questions in 'Library as Place' are encapsulated into one 'catch-all' descriptions by customers. An 'Inspiring environment which supports diverse needs' and 'Facilities and equipment conducive to learning' are broad descriptions that cover all the concepts in this section of LibQUAL+™. English students rated the 'Library as Place' Value very highly – 2nd in the Hierarchy of Value, while English academics rated it 5th. Australian students and Australian academics rated space equally at 11th. The concept of appropriate opening hours has been included in the 'Library as Place' section, in addition to considering it as an 'access' enabler, as it affects access to the physical space.

3.4 Value Factors Not Specified in LibQUAL+™

In LibQUAL+™, information literacy training is accorded a separate question regarding overall satisfaction (on a scale of 1-9) but does not go into the same depth as for the other three areas. However, the Hierarchies of Value and Irritation for all four customer segments specifically identify Information Literacy as a core value. 'Timely targeted training' was rated by the English student as 7th and 11th by the English academic. 'Effective library skills training' was rated by the Australian student as 14th and 11th by the Australian academic.

The Hierarchies of Value for the two Australian cohorts raise two Values that were not identified in the English research: 'Sufficient funding to maintain free core services' and 'Environmentally responsible'. These will be addressed in the discussion that follows.

4. Discussion

The following explore some insights that resulted from an analysis of the comparisons of Values and of the comparison of the Values against the LibQUAL+™ instrument.

It is not the purpose of this paper to discuss specific cultural differences (if any) that may affect customers' Values associated with academic library services in Australia and England. As indicated earlier, Hofstede groups the

two cultures into a common broad band. Indeed, Calvert (2001, p.732) suggests that there may be a global set of customer expectations that can be used to measure academic library service quality, based on comparative research he did using LibQUAL+™ surveys in New Zealand and China. This research supports the notion of a common set of customer values associated with academic library services.

Nor is it necessary to understand the precise nature of the services and resources provides by either library service as the Customer Value Discovery research methodology, which results in the Hierarchy of Value, is based on the customers' perception of excellence and utopia not necessarily what is available at the time. Therefore, both sets of data in the respective Hierarchy of Value are comparable as representative of what customers expect from academic library services.

4.1 Evolution of Values

The six year period between when the two sets of data were gathered allows for time dependent observations. It is clear, from the individuals' descriptions captured in the thematic sets and the headings used, that customer expectations, if not Values, changed over time. For instance, in 1999, customers specifically mentioned electronic resources as a separate value factor. In 2005, electronic resources were described by the workshop participants as part of a basic suite of information resources that enabled "easy access whenever and where ever I need them".

Again in 1999, the library online catalogue was singled out as a specific Value. By 2005, the catalogue had become one of a number of tools customers described that supported learners' access to information resources. By 2005, federated search services, using products such as Ex Libris' SFX and Metalib, play as significant a role as the traditional library catalogue. Regardless, Irritants were identified regarding the catalogue, emphasising the crucial role that it still plays in facilitating access to information.

The evolving nature of what is regarded as Value to the customer will continue to change over time. As what were once new services become mainstreamed, these become expected services and will not necessarily attract specific mention. However, new services will emerge. To stay relevant the LibQUAL+™ instrument will have to be revised as time goes on to make sure that its questions remain relevant to the library community from which it seeks feedback.

4.2 Terminology

One of the benefits of the Customer Value Discovery model is that it allows library customers to express themselves freely about what is important to them. Sometimes the words used are emotive or at least reflect the impact that services and resources have on students and academic staff. They describe their values, not what librarians think is important.

For instance, librarians tend to be concerned with format and type: books, eBooks, paper journals, eJournals, and multi-media audio visual resources. This may be because the different formats and type tend to be handled differently from ordering, receipt and to housing. The LibQUAL+™ instrument reflects these concerns. However, library customers think of information resources as a total package, disregarding the nuances between books, printed resources and digital resources. Students, in particular, are more likely to differentiate information resources as to whether the item is on a reading list or not, however, they want information 'stuff' regardless of format.

Performance-related methodologies that rely on structured pre-defined questionnaires risk the introduction of questions that can be biased towards library management perceptions of what is important to customers. It is important to give library customers the opportunity to state, in their own words, what is really important to them.

4.3 Library Staff Qualities

The areas explored by the LibQUAL+™ instrument tend to be more behaviourally focussed. There are nine distinct attributes identified.

Customers, on the other hand, do not see the minute elements of staff attributes. They see only the whole package of the personal interaction with a library staff member. Their Value is expressed in a single description in both the Australian and English Hierarchies. From reviewing the individual comments, it is apparent that library customers do not differentiate between professional librarians, para-professional or support staff. All staff are expected to be competent and friendly. Customers, in the Australian workshop, debated whether 'friendly' was a necessary characteristic; they agreed it was a value but that competent and knowledgeable was more important.

4.4 Access and Availability

A significant number of the customer values relate to 'access': to information resources; to library staff; to technology and equipment; to an easy-to-use catalogue; and appropriate opening hours. These concepts were identified in a myriad of Values associated with all three of the LibQUAL+™ main topics.

Further analysis of the individual comments from customers demonstrate that access can relate to: physical information resources being where the catalogue indicates its location; PCs and other equipment being provided in sufficient numbers to make 'easy' access possible; speedy access to staff on duty so that questions can be quickly answered; as well as 24x7 access to electronic resources. 'Easy access to materials …' related to the availability of reading list material, whether it is in a short-loan collection, on the shelves, or in a digital reserve file, as well as 24x7 ejournal access and the like.

The LibQUAL+™ instrument specifically refers to the library web site. Customers did not single the web site out, but referred to a broad range of signing and guiding information, from the web site, printed brochures, shelf labels, signposting within the building and layout maps.

4.5 Uniquely Identified Values

Values identified by the customers, and not explicitly reflected in LibQUAL+™, relate to opening hours and flexible loans policies. As previously mentioned,

these were in relation to the issue of access: borrowing limits that are generous; and the physical library being open for extended periods to facilitate borrowing and access to IT facilities.

English customers also defined the relationship between library staff and academic staff as an explicit Value. This Value has been located with 'Library staff who understand the needs of their users' in the LibQUAL+™ comparison, as it implies knowledge gained from a proactive liaison will be of benefit to the customers. One possible reason for this factor appearing as a separate Value in the English Hierarchy relates to the combined service of library and eLearning at the English university. Although, as already mentioned in the findings above, English students referred to the liaison that resulted in reading list material being available in the library.

'Managing multi-media and curriculum content' was identified for the first time in the English study in 2005. This is attributed to the experience of students and academic staff using content in virtual learning environments. From the descriptions of individual respondents, the capability to search and access learning content, as opposed to library content, is an emerging Value factor. The customers did not discriminate as to the type of information; they just wanted it to be as easy to find as other [library] information resources. In 1999, there is no mention of this type of development. Again, the organisational structure may have influenced the customers' perceptions of what might be possible at the English university.

In the Australian research, 'Sufficient funding to maintain free core services' was identified. The Value has an emphasis on 'free'. The Australian higher education sector at that time was being encouraged to become more business focussed and to acknowledge the costs of services. There was concern that funding may not be maintained and that charges for value-adding services may be levied. There was also recognition in the comments that a library requires sufficient funding if it is to innovate with new electronic resources and services. This is perhaps the only 'cultural value' of significant

difference between Australia and England, recognising different government expectations with regard to higher education funding,

'Access to materials in other libraries' did not relate to the Australian multi-campus environment. It referred to linkages with other libraries that facilitated access to other library information resources, such as inter-library loans. The English customers did not explicitly refer to this type of service. One reason suggested for this is the increasing availability of full-text journals online; there is less demand for inter-library loans.

Being 'Environmentally responsible' was the final unique Value identified by the Australian library customers. The consolidation workshop details concerns about 'the library acting responsibly at all times to minimise damage to the environment and to discourage waste'. Given that recycling is now becoming important in English universities, this Value may appear if the research is undertaken in 2008.

4.6 Academic and Student Comparisons

For the English students, the top four Values were 'Easy access to materials where and when I need them'; 'Inspiring environment supporting diverse needs', 'Comprehensive available relevant resources and 'Knowledgeable friendly accessible staff'). The English academics top four were the same except for substituting 'Proactive partnership between academic staff and library' with the space value. In Australia, the students rated the Values relating to the information resources with similar importance, but valued the staff slightly less than in England. Australian academics rated the Value 'Sufficient funding to maintain free core services' the highest. All the collection related Values followed immediately after that. The Australian academic rated the Value of library staffing higher than the Australian students, but still not as important as their English counterparts.

4.7 The Value of Irritants

The Customer Value Discovery methodology is based on a simple hierarchy of value. At one end the customer is angry. At the other end of the spectrum,

the customer is delighted by the unanticipated services/products that are available to them. In between, there are gradations of irritation and satisfaction based on the perceptions and needs of the customer. The hierarchy includes: Angry, Irritated, Frustrated, Basic, Expected, Desired, and Unanticipated.

Unlike a straight satisfaction rating, Value Modelling takes into account how seriously Irritants impact upon a customer and how frequently these occur. This is balanced against the corresponding Value factor (if there is one) of how important it is to deliver value, and how the customers' current perception of service is rated. The model does not give a total level of satisfaction, but shows that in all complex services/products sometimes customers are annoyed and sometimes delighted, and it can happen in the same interaction. The total value is derived by taking away the irritation factor from the delighted (value) factors and deriving a total score of 'value'. Value runs from the Origin to +100 and Irritation Index runs from the Origin down to -100. The model can be re-run at any stage to assess the impact of removing irritation and adding value. As the model takes into account all the Values and Irritants, the software can be re-run to demonstrate the overall impact of all potential interventions. So, knowledge of the Irritants is necessary to understand how the customer perceives current performance, satisfaction and value.

Two types of Irritation were found in the comparative studies. The first was a description by the customers of the opposite of what a successful library service looked like. These were corollaries to the Value factors, citing lack of delivery of the core values. Examples of these are: *Noisy & inappropriate study environment; Inadequacy of collection and its management; Unhelpful uninterested staff.* Interestingly, the Australian cohorts rated 'Access to competent, friendly, proactive staff' lower than their counterparts in England. However, they did not identify any Irritants associated with staff. This supports the notion that the Value of services that are considered 'basic' by the customer will be rated higher in important (value) if the perception is that the service is not up to standard, as indicated in Kano's model.

The second type of Irritant appears to be local to the university library being researched. Although these Irritants can be mapped to a LibQUAL+™ heading, the details are more specific and local: noise in the library being mentioned in the English study but not in Australia; queuing for service was another issue in the English study. The benefit of these Irritants is that it enables library managers to target areas of annoyance to achieve quick wins for the customer.

5. Conclusion

Do library managers really know what library customers value? The answer is 'YES' only if we ask customers specifically what they value. The LibQUAL+™ instrument is an effective tool identifying most of the Values identified by the Australian and English undergraduate on-campus students and academic staff. However, each methodology provided unique data. All the data is likely to be useful in guiding decision-making, even if LibQUAL+™ explores some areas in depth, the relevance of which may not be immediately apparent to the customers.

Is there a core set of academic library customer values? Yes. Appropriate Library Space; Competent Staff; Core Reading List Materials; Relevant Collection (books and journals); Access tools e.g. catalogue, online databases; Communication of services via Web Site, Signage and Guiding; Photocopiers and Printers; Appropriate Opening Hours; Appropriate Borrowing Policies; Information Literacy Skills Training.

Can library managers rely on the key areas identified in longstanding benchmarking instruments? Yes, as long as the instruments evolve with the changing expectations of library customers. Any revision of the instruments should take into account the perceptions of customer needs as well as improving data gathering for library managers.' Will the customer care?' ought to be a question asked before finalising any survey instrument.

Is there a difference between what Australian academic library customers value and those of their English counterparts? No, not really in this case.

Both libraries served similar customer numbers and discipline mix at the time of the research and experienced the challenges of multi-campus sites. The majority of differences can probably be explained by the progress along Kano's basic services graph, where more of a service results in greater satisfaction, and less causing dissatisfaction (Kano, Seraku, Takahashi & Tsuji, 1996).

Do values change over time? Yes, definitely. The problem, if it can be called that, of consistently delivering on 'value adding' services, is that these, over time, are no longer considered as 'wow' and become expected, basic services. So the bar is always being lifted on delivering value-adding and unanticipated service delivery delights. Values also change as a result of non-delivery of basic services. For instance, no customer said they valued physical spaces that are maintained at the right temperature and right noise levels. This was assumed as normal. However, the value of that expected service increases if the physical environment declines for whatever reason.

A major benefit of LibQUAL+™ is its benchmarking capability, if this is important in your sector or region. It is cost effective to administer, with many library customers being able to complete the online survey. It also provides perceptions of satisfaction for the library service. However, the reports can be difficult to interpret (Bower & Bradford, 2007; Roszkowski, Baky and Jones, 2005).

The Customer Value Discovery methodology involves far fewer respondents per customer segment (perhaps 80) to give a valid set of Hierarchies of Value and Irritation. The graphical representation of the hierarchies is easy to interpret and the irritation factors, which most often are the corollary of the value factor, provide information to managers for immediate action to reduce the irritation. It is also a facilitated exercise which raises the costs of the research exercise.

The major difference between the two methodologies is the active participation of library staff in the Customer Value Discovery process.

Personal involvement and understanding makes the implementation of changes resulting from the Customer Value Discovery process much easier to implement because of the personal and emotional understanding that comes from listening to what the customers are saying. A drawback, however, is that the process precludes benchmarking with other library services. The results relate to the particular library service and it is not possible to measure performance against the values with other libraries, as the 'sum total of satisfaction' is the level of value derived minus the irritants encountered today, in that library.

Managers need both customer values, identified by the customers themselves, and satisfaction rates to make sure that there are no assumptions made about customer preferences. The major factor towards delivering customer satisfaction, though, is to do something constructive with the data gained through either or both methodologies.

Future research at Nottingham Trent University will be to compare the results of the LibQUAL+™ survey, which was conducted in 2007, with the results of the Customer Value Discovery research data obtained in 2005.

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Paper 7

S. McKnight & M. Berrington, 2008

**Improving Customer Satisfaction: Changes as a Result of Customer
Value Discovery**

Evidence Based Library and Information Practice, March. pp.33-52.

Abstract

Objective: To identify Gold Standard Services for customers in an academic library and determine whether interventions following the identification of customer value increased student satisfaction.

Methods: "Customer Discovery Workshops" were undertaken with academic staff and undergraduate on-campus students to provide managers and library staff with information on the services and resources that customers valued, and what irritated them about existing services and resources. The impact of interventions was assessed two years after the research using a university student satisfaction survey and an independent national student satisfaction survey.

Results: The findings resulted in significant changes to the way forward-facing customer services were delivered. A number of value adding services were introduced for the customer. Overall customer satisfaction was improved.

Conclusions: The Customer Value Discovery research has created a culture of innovation and continuous improvement. An operational plan was introduced to track activity and performance against the objectives identified in the customer value research. However, there is a constant need to innovate.

Introduction

In February and March 2005, Libraries and Learning Resources (LLR) at Nottingham Trent University (NTU), a large multi-campus teaching and research university in the United Kingdom, undertook a series of workshops to ascertain customer values and irritants. The purpose of this research was to provide detailed information, from the customers' perspective, as to what an excellent library service would look like. Through the Customer Value Discovery process, irritations caused by the current library service were also

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ascertained as were perceptions of current performance against the valued services and attributes of the ideal library.

This paper focuses on a case study that uses customer feedback to change the delivery of forward-facing library services in a multi-campus library service, with the aim of improving customer satisfaction. It complements another research paper (McKnight, 2007) that focused on changes to acquisition and cataloguing processes as a result of Customer Value Discovery research.

Measuring customer satisfaction is not new in a library environment. Brophy (2006) cites a number of methodologies that can be used for this purpose: user surveys and questionnaires; the LibQual+™ benchmarking instrument; customer feedback analysis; focus group interviews. Customer Value Discovery is another methodology and has been primarily used in the for-profit sector, especially retail, finance, and insurance. Some performance measuring techniques operate by benchmarking against other like service providers. The Customer Value Discovery methodology does not lend itself to such comparisons, as it is about the service being researched today with current customers and current service providers engaged in the identification of Values, Irritations, and Perceptions of Performance.

A new Director of Library Services commenced employment at NTU in August 2004. It was a time of significant organisational change across the University. An academic restructure, created four academic colleges with nine schools that replaced ten faculties. It was necessary for LLR to realign its forward-facing organisational structure, especially its subject librarians/information specialists who were organised along faculty and campus-specific lines, to support the new academic arrangements. At the same time, a new university-wide strategic plan was published that included, for the first time, a key platform of 'Gold Standard Customer Service'.

Objectives

A primary objective of this research was to establish library customers' perceptions of a 'Gold Standard'. The NTU strategic plan does not define 'Gold Standard' but rather challenges all parts of the University to strive towards delivering the best possible customer experience.

A related objective was to improve customer satisfaction. Prior to undertaking the research in 2005, there was no definitive data on how students judged the library and IT resource room services. However, students are only one customer segment of an academic library. Academic staff are also a significant customer group. Therefore, the Customer Value Discovery research was aimed at the two largest customer segments: academic staff and on-campus undergraduate students.

The final objective was to actively engage library staff in the discovery process. This was to ensure that staff clearly understood customers' perceptions of the current services so that they could see why changes may be necessary. Active engagement in deciding what actions should be implemented as a result of the research creates 'buy-in' to the changes, some of which could be quite significant. This was particularly important where changes to work practices, reporting relationships, and job descriptions were necessary.

Methods

The new library director had previous experience in Australia using Customer Value Modelling, which uses a combination of focus group techniques and sophisticated technology, to identify Customer Value. The concept has been developed over time by Dr. Karl Albrecht (1994) and Dr. Kevin Austin of Enzyme International (Aust.) (Albrecht, 2000). Because of the positive outcomes of using the process in Australia, the same process was adopted for this research at NTU.

Initial Planning

A consultative approach was used to engage managerial staff in initial positioning and planning decisions. A number of events were conducted prior to the Customer Value Discovery workshops:

- In October 2004, there was an initial planning session with LLR Heads to reach agreement on an overall restructure. Up to this time, the following reported to the Director: Head, eServices; Head, Lending Services and Administration; Collection Development Manager; Acquisitions Manager; e-Services Manager; and three Information Managers representing the campus academic liaison teams. The new structure established three new business units: Customer Services (responsible for all student facing library services, including liaison with academic staff), Information Resources (responsible for library technical services work) and the Business Support Unit (responsible for administrative functions, for example human resource management, finance, purchasing). Later in 2005, the Educational Development Unit was created with responsibility for developing and managing the University's new e-learning programmes.
- In December 2004, a Planning Forum with key LLR managers was conducted to identify barriers to success and agree top-level objectives for an LLR Operational Plan. Each LLR unit then wrote its own action plan to meet the objectives (and overcome barriers) in the Operational Plan.
- In January 2005, an LLR Customer Facing Teams Workshop was held to identify the changes required, especially in a structural sense, to align liaison librarian functions with the new academic structure of the University.

Customer Value Discovery Workshops

These events were followed in February and March 2005 with facilitated Customer Value Discovery workshops. The process of Customer Value Discovery research involves holding workshops with the respective customer segments (in LLR's case: academic staff and undergraduate on-campus

students) observed by library staff; a consolidation workshop to bring together the outcomes of the Customer Value Discovery workshops; and a process of Interactive Value Modelling that enables 'what if?' questions to be modeled using software that plots the impact of the proposed changes upon customer value and satisfaction. In all, eight customer discovery workshops were held (five student and three staff workshops over three different university campuses). Because of the small sample size at one campus, a number of one-on-one interviews were also held. In all, about 90 students and 35 academic staff were involved, with approximately 40 library staff acting as observers during the workshops.

Further information on the Customer Value Discovery workshop process can be found in McKnight (2006) and McKnight (2007).

A diagram of the process follows:
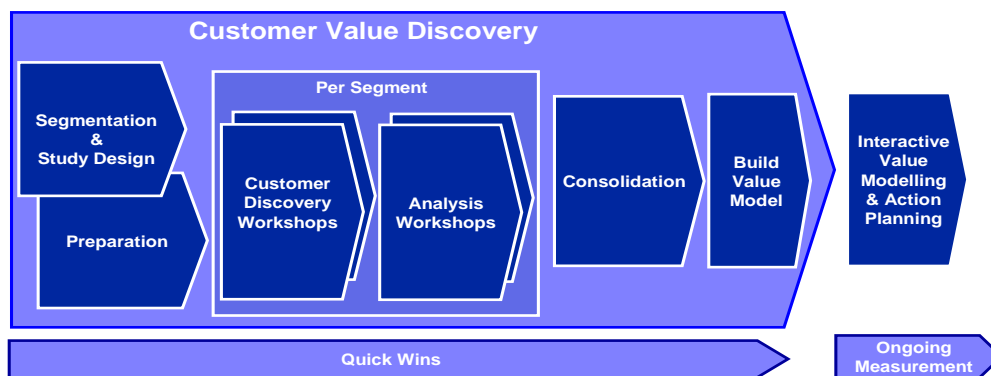
"Customer" refers to a target group

Figure 1: Customer Value Discovery Process © Enzyme International (Aust.)

Customer Value Discovery is based on a very simple model, the Hierarchy of Value (See Figure 2). On its continuum, it describes the potential experiences that any interaction between a customer and service provider can provide. In

a service industry, such as a library, all interactions, whether with a staff member or a resource (e.g. book) or service (e.g. web page) can both satisfy and irritate a customer at the same time.
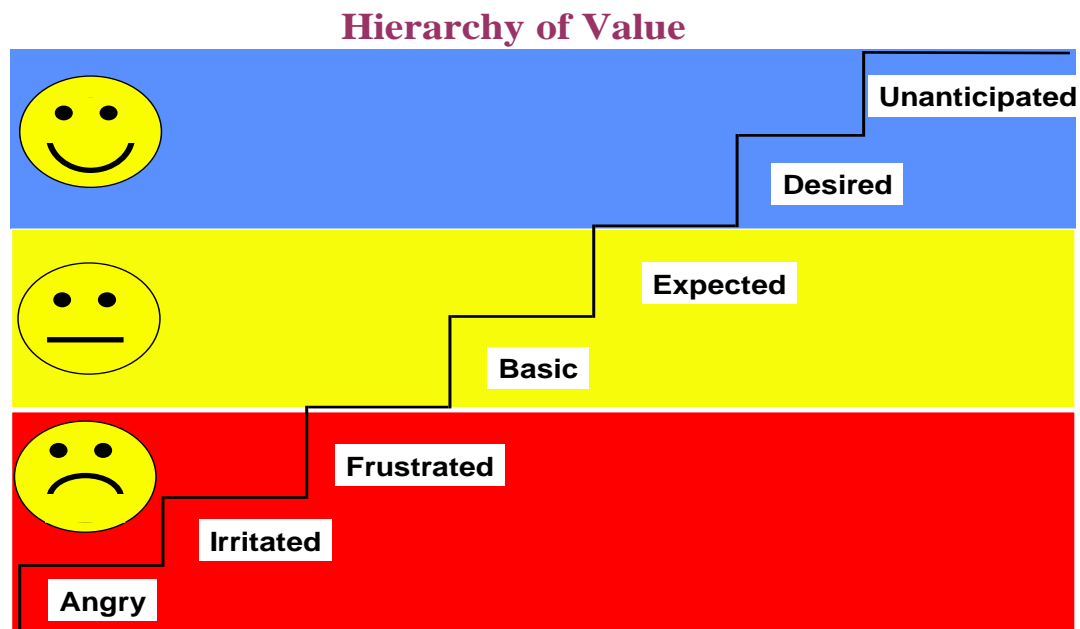
Figure 2: Hierarchy of Value © Enzyme International (Aust.)

The aim is to **consistently** deliver on the **basic and expected** services, and to deliver **desired and unexpected** services (but not at the expense of neglecting the basic/expected services) and doing these without causing irritation to the customer.

The Hierarchy of Value (figure 2), as designed by Austin/Enzyme International (Aust.) is similar to the Kano Model of customer satisfaction (as described by 12Manage <http://www.12manage.com/methods_kano_customer_satisfaction_model.html>) Kano describes six factors or dimensions: Basic Factors, Excitement Factors, Performance Factors, Indifferent Attributes, Questionable Attributes and Reverse Attributes. The following table shows how the Kano dimensions compare to the Hierarchy of Value model.

Kano Model Attributes	Hierarchy of Value & Irritant Model
Basic Factors	Basic and expected
Excitement Factors	Desired and unexpected
Performance Factors	Plotted on a performance graph for each value/Irritant factor
Indifferent Attributes	Not identified by the customers in this model. Only important values and irritations are described
Questionable Attributes	Not valued, so not identified by the customers
Reverse Attributes	Irritants: angry, irritated, frustrated

Table 1: Kano Model and Customer Value Model Comparison

Despite some similarities, there are marked differences:

- In the Kano Model, pre-defined pairs of questions are prepared for each service/product feature being scrutinised. In the Customer Value Discovery Model, the **customers** describe their perceptions of excellence/value, and rate these against all other identified value (and irritant) factors for importance and performance.

- The Kano Model provides customer satisfaction and dissatisfaction upon a complex diagram supported by complex tables. The Customer Value Discovery methodology produces multiple easy to interpret graphs depicting hierarchies of Value and Irritation.

- A further significant difference is the notion of service/product providers actively participating in the process of discovery. In the Customer Value Discovery process, service/product providers vote as they assume the customer will vote, thus providing a gap analysis of customer and provider perceptions. While the Kano instrument could be provided to the service/product providers to complete as they expect the customer will complete the survey and the two diagrams and tables compared, it would not provide the emotional involvement of staff that the Customer Value Discovery process engenders.

The Customer Discovery workshops provide a wealth of information: a prioritised list of irritants, with the frequency of irritation and the severity of the irritation identified, as well as prioritised values, with the importance and perception of current performance against these value factors. The process utilises a mix of high and low technology: individual workbooks, sticky notes to capture individual priorities, affinity diagrams to develop thematic sets of customer priorities, wireless voting technology, and forced pairing software to ascertain the hierarchy of values and irritants.

An important and unique feature of the process is that library staff observe the workshops in silence and vote as they think the customers will vote during the different stages (priority/importance and performance) of the workshop. This challenges staff assumptions and highlights just how important it is to really ask and listen to customers, as there are often significant gaps in perceptions. This personal involvement in the process and active listening to the customers' comments helps staff to understand why changes are necessary if the organisation is to deliver the customer values and reduce the irritants.

Student Satisfaction Surveys

In 2005 and 2007, NTU conducted student satisfaction surveys. In 2005, 3400 students completed an online survey; in 2007, more than 5500 students undertook the survey. Questions relating to the services of LLR were included in both surveys and the changes in satisfaction level are shown in Table 6.

A separate government survey administered by the Higher Education Funding Council for England (HEFCE) was conducted in 2005, 2006 and 2007. These surveys, completed by graduating students, ascertain the level of satisfaction in a full range of university services, including library and IT resources. The survey questions on library-related services were comparable in 2006 and 2007, providing changes in satisfaction level for the graduating cohorts. The results are included in Table 7.

Results

Values and Irritations

The Customer Value Discovery research provides hierarchies of values and irritations in graphical format. The highest value or irritation is given a value of 100% and the others are expressed as a percentage of the highest ranked item based on the voting results using wireless keypads that force tradeoffs of pairs of values and pairs of irritants. Sample graphical representations are provided below.

Overall Hierarchy of Value – Comparative

Note: Value Factors are ranked in order of Importance for all segments combined
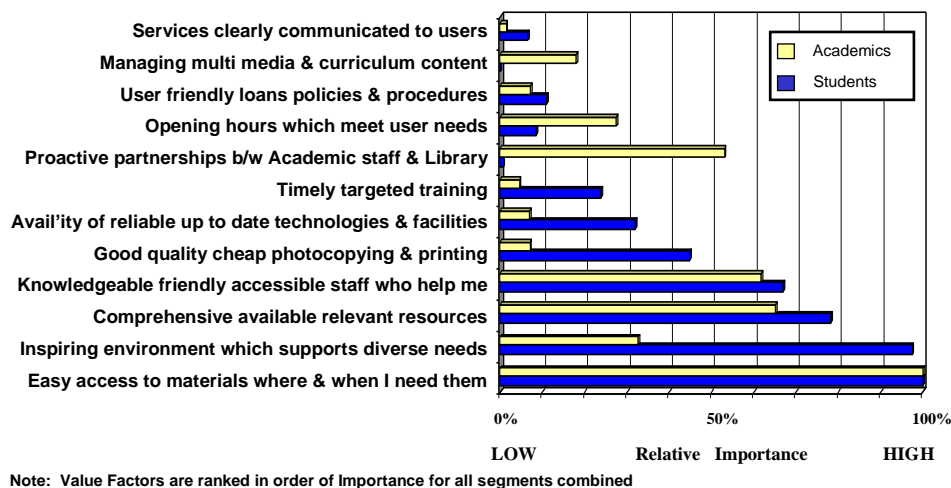
Figure 3: Hierarchy of Value for Academic Staff and Students

Hierarchy of Irritation – Comparative

Legend: Academics, Students

Categories (top to bottom):
- Don't like card access policies
- Lack of training & support when I need it
- Queuing for service
- Problems with catalogue
- Inadequate opening hours
- Inadequate academic liaison & communication
- Unreliable & limited IT / AV
- Unhelpful uninterested staff
- Can't find materials I need
- Restrictive & difficult Loans policies & practices
- Inadequate expensive photocopying / printing
- Noisy & inappropriate study environment
- Inadequacy of collection & its management

Axis: 0% ... 50% ... 100%
LOW   Relative Severity   HIGH

Note: Irritants are ranked in order of Severity for all segments combined

Figure 4: Hierarchy of Irritation for Academic Staff and Students

There is a direct correlation between many of the irritants and values. Therefore, by focusing on reducing irritation, there is a corresponding improvement in value for the customer.

Action taking following the Customer Value Discovery Process

The values and irritants obtained via the CVD process and the corresponding action taken are presented in the tables below. The values and irritants were actively used to inform operational planning, staff development activity and budget setting within LLR. Prioritising activity and expenditure in this way made it possible to secure sufficient funding or redirect funding from non-value adding services to deliver an ambitious portfolio of improvements at a time of constrained budgets within the University, safe in the knowledge that the time, effort, and funding was being effectively targeted. Many of the improvements were straightforward and directly addressed customer concerns – unreliable photocopiers replaced were with new equipment for example. However the Customer Value Discovery process also provided additional insight into customer perceptions of LLR and its services as well as encouraging and challenging library staff to think more creatively about

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service delivery. They were also able to use their expertise to 'make the connections' between customer responses and the subsequent development of new services: the innovation in information skills provision is a good example of this. The Customer Value Discovery process was a public statement to customers that LLR was committed to improving services, therefore, it was important that feedback was provided about how it had responded. Hence, besides the usual promotion of individual service developments, a poster campaign, using a 'you asked for…' and 'we responded by…' approach was used to demonstrate LLR had listened and acted in a timely manner.

Library Collections	
CONSOLIDATED VALUES and IRRITANTS	**ACTION**
Related Values • Easy access to materials where and when I need them • Comprehensive, available, relevant resources **Related Irritants** • Inadequacy of the collection and its management • Cannot find materials I need • Problems with the catalogue	• Developed a Library Information Resources Policy to guide future collection development and collection management (approved by Academic Board after wide consultation) • Digitised short loan items, where possible, to maximize access to these in-demand resources • Purchased additional copies of core reading list resources • Established projects to improve reading list management • Secured additional funding for books and journals • Licensed additional eJournals so as to enable 24 x 7 access • Licensed more eBooks (e.g. from 200 titles to 34,000) • Reclassified the entire library collection to one scheme (from six) • Installed a new Library Management System to provide a much more user-friendly user interface to the catalogue • Enhanced the federated search service to enable easy access to

	digital databases and eJournals • Redesigned the LLR web site to make it more accessible (disabled users) and with richer in content • Implementing an Institutional Repository to archive research and scholarly publications and to make these publicly discoverable • Postal Loans services available for students not regularly on campus • Secure electronic delivery and online requesting of inter-library loans implemented

Table 2: Correlation of Values, Irritations and Actions – Library Collections

Library Collections

It was no surprise that '*easy access to comprehensive, relevant resources which were available when needed'* would be highly valued. However, the significance placed on this relative to all other areas of service delivery demonstrated to the University that improvements to the collection should be the highest priority. This was addressed in two ways. First, an increase in the budget for the collection (particularly electronic resources) was agreed to address historical under-funding relative to other similar Universities and to provide the means by which several new collection development initiatives could be funded. Secondly, a Library Information Resources policy to govern and direct collection development and provide guidance to the liaison librarians over priority areas for expenditure was developed in consultation with the academic community. This policy framework was used to guide projects relating to targeted collection developments, digitisation of local content, introduction of new material formats such as eBooks, and management of reading list materials.

For a more complete account of changes in the Information Resources area, see McKnight, 2007. The combination of increased funding and improved management of spending plans was expected to realise considerable benefits in this key area of concern to LLR's customers.

The Library Environment	
CONSOLIDATED VALUES and IRRITANTS	**ACTION**
Related Values • Inspiring environment that supports diverse needs **Related Irritants** • Noisy inappropriate study environment	• Identified silent, quiet and 'time out' zones in each library. SILENT areas are patrolled to maintain a conducive study environment • Improved signage in all libraries • Submissions to estates for major capital works approved resulting in refurbishment of library and IT spaces (new furniture, lighting etc) • Student and staff artwork used to decorate library public spaces • 'Funky' furniture installed in student 'time out' rooms; Vending machines also installed
Related Value • Good quality cheap photocopying and printing **Related Irritant** • Inadequate and expensive photocopying and printing	• New copiers introduced to improve reliability • Reduced costs of photocopying • Colour copying facilities provided at each campus • Introduced self-payment kiosks for printing and copying
Related Value • User friendly loans policies and procedures **Related Irritant** • Restrictive and difficult loans policies and practices	• Revised loans policy and increased limit of items allowed for borrowing • Revised inter-library loans policy and practices and made implementation of it more consistent • Implementing loans policies consistently on all campuses

Related Value • Opening hours which meet user needs **Related Irritant** • Inadequate opening hours	• Extended Summer opening hours • Reviewing evening and weekend opening hours with the intention of extending hours at key times during the academic year
Related Value • Availability of reliable up-to-date technology and facilities **Related Irritant** • Unreliable and limited IT / AV equipment	• Upgraded IT Resource Room equipment • Established additional Resource Rooms (more PCs) • Introduced more consistent support for students in other University IT Resource Rooms • Wireless access implemented in all libraries

Table 3: Correlation of Values, Irritations and Actions – The Library Environment

The Library Environment

The Customer Value Discovery research highlighted several factors concerning the day-to-day use of the libraries and resource rooms – noise, reliability of equipment, opening hours, attractiveness of the buildings, etc – that were a source of ongoing irritation to customers. In response to this a number of initiatives, including building refurbishment and equipment replacement programmes, were initiated resulting in a much improved customer experience. While many of the required improvements were already recognized as needed by staff, new photocopiers for example, the Customer Value Discovery process did help with the prioritisation and scheduling of improvements and also helped with securing the funding.

A particularly important irritant was the view that noise levels were excessive in the libraries and impacted negatively on their value as study locations. This was a complex issue to address: the libraries needed to support a variety of different study activities including group work as well as individual silent study, and all within a constrained space envelope. After considering a range of options, the view was taken that the mix of group, quiet and silent study areas was essentially right, but that they were inadequately promoted and managed.

Consequently, a small library staff working group was formed, led by a Senior Library Assistant, to develop new approaches to the management of the various study zones which resulted in the novel and successful introduction of colour zoning across the libraries and IT resource rooms – red for silent, amber for quiet, and green for social areas – which was well received by the student users. This working group was a good example of teamwork and empowerment, as the staff involved in maintaining an appropriate study environment were directly engaged in defining the solutions.

Front-line Staffing	
CONSOLIDATED VALUES and IRRITANTS	**ACTION**
Related Value • Knowledgeable, friendly, accessible staff who help me **Related Irritant** • Unhelpful, uninterested staff	• Multiple front-line service teams restructured into new single customer facing team to improve responsiveness • All staff reminded of importance of a welcoming environment; customer service training provided and included in annual staff training schedule • Increased budget for staff development with major focus on development of customer service skills • Introduced Performance Development and Review for all staff to help capture skill development needs and monitor performance • Revised the student charter to reflect the values identified by students, and established key performance indicators; created a new service charter for directed at academic staff

Table 4: Correlation of Values, Irritations and Actions – Front-line Staffing

Front-line Staffing

Before restructuring, provision of first-line student services in the libraries had been provided by multiple teams, organized according to functional areas with separate inquiry points reflecting a support model unchanged from the late 1990s. However, over recent years the demands on services from students and other customer groups has increased significantly with blurring and overlap among the teams. The Customer Value Discovery process identified that the current team structures led to "confusing help points" with library customers facing a number of desks depending on their needs. This confirmed assumptions that the customers of LLR view it as a single entity rather than discrete teams and thus expect a seamless service provision.

As a result of this, an LLR Working Group was established which recommended a new organisational model based on the merger of the teams and the new team working from a new single Information Desk. From an organisational point of view, this provided increased flexibility in the staffing resource to improve responsiveness to service demand. From a customer point of view, a simplified arrangement for obtaining support was the result as an inquirer no longer had to know which desk to approach for support. For the University, this was a major organisational change, affecting almost 100 members of staff, and required extensive negotiations with the staff concerned and Trade Unions as it required major retraining/re-skilling for staff. A few months into the new organisational arrangements, staff were acknowledging that while the change had been challenging for them, it had helped improve inter-team working and improved their understanding of the importance of delivering joined-up services to the customer.

Academic Liaison	
CONSOLIDATED VALUES and IRRITANTS	**ACTION**
Related Value • Pro-active partnership between academic staff and library **Related Irritant** • Inadequate Academic liaison and	• Restructured Information Team to provide support for University strategic priorities • Increased emphasis of sharing good practice across all Schools (e.g. information literacy training,

communication	research support)
	• Increased emphasis on support for e-Learning; trained librarians to support roll-out of new virtual learning environment
Related Value • Timely targeted training **Related Irritant** • Lack of training and support when I need it	• Included library information in 'Getting Started', a 6-week online induction programme for new students • Introduction of 'Welcome Desks' at the beginning of the academic year to help new students settle in • Significantly improved induction and information skills provision, with an increased emphasis on information skills training for all students and staff • Introduced online tutorials for just-in-time learning • Embedding information skills into first year programmes included in NTU Institutional Learning & Teaching Enhancement Strategy, and being progressively introduced • Introduced drop-in sessions for information skills development • Introduced self-directed library induction tours using MP3 players

Table 5: Correlation of Values, Irritations and Actions – Academic Liaison

Academic Liaison

Nottingham Trent University had always placed great importance on the close involvement of its professional librarians with the teaching, learning and research activities in the University and the Customer Value Discovery process emphasised the importance of this with a clear demand for more joint working with academics and skills development work with students. Prompted by a major restructuring of the University's academic departments, which

would in itself have forced a matching realignment of the responsibilities of the professional librarians, LLR used this as an opportunity to fundamentally restructure the academic liaison team into a new single unit to provide the flexibility to respond to unmet demand, and provide the librarians in the new structure with a coherent strategy for liaison work. The 'reinvented' team provided the impetus and resources to introduce a number of new developments: collaboration in eLearning projects, the use of Web 2.0 type technologies to improve relevance and take up of student induction and skills sessions, development of additional online self-help information tutorials, introduction of a virtual reference service, support and involvement in the University's 'Welcome' programme for new students, and introduction of drop-in sessions to complement the existing programmed information skills sessions.

The Hierarchy of Values has also informed the revision of LLR's service charter, with a new charter for services to academic staff created. (See: <http://www.ntu.ac.uk/LLR/about_us/service_charter_values/index.html>)

NTU Student Satisfaction Survey

The University's bi-annual student satisfaction survey demonstrates that the actions taken in response to the Customer Value Discovery research have had a positive impact on student perceptions of service.

Survey Area	2005 % actively satisfied	2007 % actively satisfied	Change
Library website	73%	81%	+8%
Opening hours	70%	76%	+6%
Helpful and accessible staff	67%	74%	+7%
Access to printers/ photocopiers	55%	73%	+18%
Availability of study places	64%	73%	+9%
Availability of e-journals and databases	66%	70%	+4%

Range of e-journals and database	61%	69%	+8%
Availability of group study rooms	n/a	68%	n/a
Range of books	61%	65%	+4%
Range of printed journals	61%	64%	+3%
Availability of PCs in libraries	48%	63%	+15%
Noise levels	52%	62%	+10%
Training and support for students in using library facilities	57%	61%	+4%
Range of audio and visual materials	61%	59%	-2%
Availability of books and materials from reading list	47%	53%	+6%
Loan periods	52%	57%	+5%
Loan of laptops for in-library use	n/a	51%	n/a

Table 6:   2005-2007 Nottingham Trent University Library Student Satisfaction Survey Comparison

This NTU survey, which only canvasses students, does not replace the Customer Value Discovery process. While there is a similarity between the needs of students and those of academic staff, the Customer Value Discovery research provided evidence about what academic staff valued, as well as the priority of services valued by on-campus undergraduate students.

National Student Satisfaction Survey

Although there is no comparable data available for 2005, the improvement in the three library-related questions in the HEFCE National Survey of Students from 2006 to 2007 shows a marked improvement in rating over the 12 month period and also satisfaction ratings that are above the sector average on all cases.

Q. 16 - The library's resources and services are good enough for my needs
− 82nd in 2006
− 59th in 2007 with a score of 81% (average sector score 77% satisfaction)
Q.17 – I have been able to access general IT resources when I need to
− 44th in 2006
− Joint 19th in 2007 with a score of 91% (average sector score 84% satisfaction)
Q.18 – I have been able to access specialised equipment, facilities or rooms …
− Joint 66th in 2006
− Joint 30th in 2007 with a score of 78% (average sector score 73% satisfaction)

Table 7: National Survey of Student Satisfaction Results for Library-managed Services, Nottingham Trent University

Discussion

Gold Standard Customer Service

The first objective of the Customer Value Discovery research was to be able to articulate what Gold Standard meant for the Library. The Hierarchy of Value provides the evidence regarding which services are most important, enabling focus on those areas that will make the greatest impact on student and academic staff satisfaction.

Within LLR, the notion of 'Gold Standard' is to consistently deliver the basic and expected services; to strive to provide the desired and unexpected services that would delight the customer; and, at all times, reduce the potential for irritating the customer in the course of service delivery. This implies continuous improvement as unexpected services become the norm.

Customer Satisfaction

The second objective of the Customer Value Discovery exercise was to improve customer satisfaction. The evidence provided by the two student satisfaction surveys attest to the improvement in student satisfaction over a two year period. It is argued that the improvement in all aspects (except 'range of audio and video materials') is due to the initiatives that were put in place as a result of the initial research in early 2005. The one criterion that did not improve was a service that is being deliberately phased out, involving the move from analogue resources (videos, slides, compact discs) to digital resources.

Engagement of LLR Staff

The Customer Value Discovery process requires engagement of the organisation's staff. The observer status of staff is fundamental to the workshops with customers. The observers are required to listen and to vote as they think the customers will vote. This enables a greater understanding of customers' problems, values and expectations. The personal experience engenders greater commitment from staff to act on the feedback that they

receive. This is supported by social science research on persuasion that identified that "public commitments, even seemingly minor ones, direct future action" (Cialdini, 64). The very fact that the organisation is undertaking the research and has staff listening at the workshops demonstrates that commitment.

Through the forced-pair voting process during the Customer Value Discovery workshops, assumptions of staff are challenged. The staff observers vote as they expect the customer to vote. The gap analysis on performance and priorities can reveal of a lack of understanding of customer perceptions and needs.

Management commitment to act upon the evidence presented by the Customer Value Discovery process is vital to its success. To ignore the results would be to raise inappropriately expectations of both staff and customers. Therefore, the engagement of staff at all levels in the organisation (not just the observers) with the research outcomes and the identification of actions to improve value and reduce irritations is important.

In LLR, this engagement was achieved in a number of ways:
- The values identified by customers have been reflected in the LLR Operational Plan. The majority of objectives in the Customer perspective come directly from the Customer Value Discovery research. The others come from emerging requirements and the University's strategic plan directions.

  - *C1 Objective: Facilitating easy access to a comprehensive, relevant range of information resources*
  - *C2 Objective: Facilitating the Development of Informed and Independent Learners*
  - *C3 Objective: Creating an Inspiring Environment that meets the diverse needs of Learners, Teachers and Researchers*
  - *C4 Objective: Enhancing Support for e-Learning*
  - *C5 Objective: Enhancing Support for Researchers*

- - *C6 Objective: Strengthening our Support for the Widening Participation Agenda*
  - *C7 Objective: Developing and Sustaining a Proactive Partnership between LLR and Academic Staff*

- Managers within LLR engage their staff in the definition of actions under these objectives to identify what is to be undertaken in the planning period.
- Individual Performance Planning and Review (PDR) objectives are aligned with the operational plan so as to link individual performance with the overarching customer values.
- Teamwork and Task Groups are used extensively to deliver on the plan. From a customer's perspective, the organisational unit is 'just the library' or 'the university'; they do not see the different units that have to work together to deliver on the customer values. This has resulted in a reduction in the sense of organisational silos that existed before the Customer Value Discovery research.
- Monthly Managers' Forum meetings monitor and review actions within the Operational Plan, ensuring that there is broad understanding of all the initiatives and the related project dependencies.

Conclusion and Future Research

Austin said:

> "If you're going to get everyone in the organisation to concentrate on delivering customer value, you've got to give them a concrete model of what that value is, as defined by the customers themselves. It's not enough to ask employees to smile and be nice. You need to give them a workable definition of the value they're expected to deliver, and then help them learn and use the critical work practices that deliver the value." (Albrecht 91)

This is the concept that is driving change in LLR. The annual planning objectives for the customer perspective are couched in the terms of the customers' values; the PDRs are aligned so every individual can see how their actions link in to the achievement of the operation plan, which is aimed at delivering value to customers.

Albrecht said that organisational intelligence is "the capacity of an enterprise to mobilise all of its brainpower, and to focus that brainpower on accomplishing its mission" (Albrecht, 2003). LLR is endeavouring to be an intelligent organisation. By understanding precisely what customers value; by striving for "Gold Standard" customer service; and by engaging staff at all levels to implement the necessary initiatives to deliver added value and to reduce irritation, LLR is using its collective intelligence.

There is much still to do in imbedding the new ways of working, with customer values at the centre of all decision-making. However, the framework has been established and there is significant buy-in by staff. The constant need to innovate is challenging, as staff grapple with finite budgets and increasing expectations of fee-paying customers. What was new yesterday will be an expected service tomorrow. So the process of consolidating new practices and services must be carried out in tandem with designing and delivering new services to meet emerging customer expectations.

"Value Targeting" refers to aiming for whatever matters most to *individual* consumers. (Albrecht, 2006, 26). Library services in the past have been aimed principally at large cohorts of customers. Personalisation of services is an emerging issue to be addressed, especially when the Millennials (those born between 1982 and 2000) attend university. Their expectations of personalised services, their extensive use of portable IT devices and services, and their preferences to work and study in teams will require new interventions by higher education library services. Library management and staff cannot afford to be complacent, regardless of how satisfied today's customers are.

Further research is planned. A comparison of values and irritants between Australian and UK academic libraries will be undertaken to ascertain whether there are 'core library values' that transcend national barriers. The relationship of irritants with values will be examined and English and Australian irritations

compared. Should core values be identified, these will be compared to the benchmarking areas and questions in the LibQual+™ instrument.

The Customer Value Discovery methodology is robust and well tested. However, limited library budgets may not extend to contracting the facilitators to undertake the research, although the cost, as a percentage of total budget, is very small and the benefits of targeting funding to services that add value is considered justification. Further work will be undertaken to see if any refinements of the process could be made to reduce the costs but still deliver useful results and thus make the model more accessible to library management teams.

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Paper 8

McKnight S. 2009

Bridging the Gap between Service Provision and Customer Expectations

Abstract

Purpose
This paper serves as a reminder to all managers that they must understand their customers, from the customers' perspective, and not make assumptions about customer needs. By identifying what customers define as value propositions for an excellent library service, management can implement actions that aim to deliver value thus bridging the gap between service provision and customer expectation.

Design/methodology/approach
Customer Value Discovery workshops were held with undergraduate on-campus students and academic staff at Nottingham Trent University to identify customer values and irritations. Library staff participated in the workshops and voted as they expected their customers to vote. The gaps identified between staff assumptions of customer perceptions of service importance and performance served as a catalyst for staff engagement in the change process that was necessary to deliver on the value propositions and reduce customer irritations. Interactive Value Modelling was used to enable library staff to identify 'what if' scenarios to gauge the potential impact of possible interventions on customer satisfaction.

Findings
Library staff assumptions of customer perceptions were not always accurate. The gaps identified helped to engage staff in the change process that was necessary to improve perceptions of value and to reduce irritations. By explicitly addressing the value propositions with the aims of adding value and reducing irritation, student satisfaction with library services, as measured by two independent satisfaction surveys, improved considerably.

Research limitations/implications (if applicable)
The research is based on two customer segments of one university library. The research should be repeated after a gap of three-four years to check if the value propositions and irritations have changed in that time. If so, the goals of the library's operational plan would have to change to reflect the new value propositions.

Practical implications (if applicable)
A comparison of the Customer Value Discovery methodology with LibQUAL+™, which is used internationally, and the Rodski Research Group's methodology, used in Australia and New Zealand, is given.

Originality/value
The Customer Value Discovery methodology is most often used in the commercial sector. This paper explores its potential in the not-for-profit sector in the context of a university library service.

Keywords: Customer Value Discovery; customer satisfaction; library performance measurement; university library services

Research Paper

Introduction

The title of this paper raises a number of questions that require answering before addressing the fundamental issue of bridging the gap between service provision and customer expectations. The questions are: Which customers? Which gaps?

Different customers have different service needs and expectations. It is important, therefore, to make sure the research and actions arising from the research address the problems faced by customers. Management responses to any identified gaps between perceived expectations and perceived performance will have to be tailored to meet the needs of the particular customer segments.

It will also be necessary to identify what are the service expectations for the customer groups being researched, for without these there can be no defined gaps in service to bridge. As indicated above, different customers can have different service expectations. Library management may choose to research one service only, and focus on how this service could be improved for the various customer segments that use the service. However, it is more likely that the totality of services need to be considered, and the most important services with the biggest gaps become the focus for attention.

The paper will suggest a number of processes and research methodologies that can be used to identify service expectations and to measure performance that can provide the gap analysis. While this paper will discuss a particular methodology, Customer Value Discovery, in more detail, it will draw upon a broad range of service quality, marketing and library and information science literature, to provide a foundation for embracing the action research required to bridge gaps in service performance and customer expectations.

Finally, the paper will discuss some of the important staffing issues, especially in relation to the service culture, that need to be addressed if changes are to be implemented to reduce the gaps between what is provided and what

customers' expect in an ingoing environment of continuous quality improvement.

Which Customers?

A library service has a variety of customer segments and it may not be feasible to address issues for all customer groups. The service quality and marketing literature identify the importance of understanding an organisation's customers. This is particularly important in a service sector such as a library. Different customers mean different service requirements (McKnight, 2000; Wilson, 2009).

For instance in an academic library, the customer segments can be differentiated into broad segments: undergraduate degree and postgraduate coursework students; research degree students; academic staff and university administrators. However, it is possible to further segment any of these groups. For instance, undergraduate students could be segmented by: discipline of study (medicine or law or business etc); mode of study (full-time on campus; part-time on campus; part-time off campus); demographic characteristic (international students; local students; school leavers or mature students; female and male students; disabled students; first in a family to attend university; etc).

A public library service would have a wealth of customer segments: infants; young children; teenagers; young adults; adults; older citizens; people with disabilities; parents; business and community members; etc. A special library would also be able to identify different customer segments. In fact, any type of library could identify multiple customer segments.

It is important to identify which customer segments are to be included before embarking on any investigations. Pragmatic decisions may be required to decide on customer groups to be investigated. Which are the largest customer segments served? Which customers are having the most problems? How much money and time is available for the research.

Without seriously contemplating these issues, the research undertaken could be too general to identify useful data for management action. Improving service quality and increasing customer satisfaction, by reducing gaps between customer expectation and perceived level of performance, is an ongoing task. Ideally, all customer segments should be investigated; however, this is unrealistic in most instances. Therefore, research on the various customer segments should be prioritised to maximise return of investment.

Service Quality and Customer Satisfaction

Parasuraman, Zeithaml and Berry (1985) undertook seminal research on service quality and its link to lowering manufacturing costs and improving productivity, which are of particular importance to the producer of the goods or service. They identified three underlying themes: that service quality is more difficult for the consumer to evaluate than the quality of goods; service quality perceptions result from a comparison of consumer expectations with actual service performance; and quality evaluations are not made solely on the outcome of a service; they also involve evaluations of the *process* of service delivery (Parasuraman, Zeithaml and Berry, 1985, p.42). The importance of the process, as well as the actual outcome of the service transaction, has a strong resonance with the findings of McKnight & Berrington (2008, p.37) that in a service industry, such as a library, all interactions and transactions, *the process*, either with a staff member or a resource (e.g. book) or service (e.g. web page), can both satisfy and irritate a customer at the same time.

SERVQUAL, developed by Parasuraman *et al* (1988; 1991) takes into account the perceptions of customers and the relative importance of service attributes. It was informed by the research undertaken by Parasuraman *et al* in 1985 on the gap model of services. The methodology of SERVQUAL involves surveying customers against key service dimensions and then comparing the outcomes against an organisation that is 'excellent'. SERVQUAL was used widely in service industries, including some library services. Nitecki (1997) provides a list of publications describing empirical

research on the application of SERVQUAL in libraries. A key university library application of SERVQUAL was at the Texas A&M University, where Cook and Heath undertook research involving service quality perceptions of sample library customers in 1995, 1997 and 1999. As a result of their experience in using SERVQUAL, they developed LibQUAL through the auspices of the Association of Research Libraries in 2000. (Cook and Heath, 2000; 2001)

The development and use of LibQUAL and LibQUAL+™ is described by Thompson (2009). LibQUAL and its derivatives have had a profound impact on benchmarking and improvement of library and information services worldwide. There have been many publications describing the use of LibQUAL+™ in libraries and a comprehensive list is included on the LibQual website at <http://www.libqual.org/Publications/all.cfm?PubType=3>. Included in this publications list is one of the author's publications, McKnight (2008), which includes a comparison of LibQUAL+™ and Customer Value Discovery research which is the methodology of focus in this paper.

Research has identified a strong link between customer value, service quality and customer satisfaction. (Rust and Oliver, 1994; Spreng and MacKoy, 1996) "The result on the value-satisfaction link suggests that to enhance customer satisfaction, a service provider can spend its effort on improving the value perceived by customers. … By focussing on attributes with high importance rating, a service provider can tackle those critical weaknesses that severely hamper its efforts to enhance customer value. By working on those weaknesses, a service provider could improve value and hence customer satisfaction" (Lam *et al*, 2004, p.308). These observations by Lam *et al* are fully supported by the Customer Value Discovery research discussed in this paper. Indeed, the research found that customers identify irritants or weaknesses related to services that they also value. "There is a direct correlation between many of the irritants and values. Therefore, by focussing on reducing irritation, there is a corresponding improvement in value for the customer". (McKnight & Berrington, 2008, p.40)

The library professional literature has many references to library service quality and customer satisfaction (for example: Andaleeb and Simmonds, 1998, Audit Commission, 2002; Cullen, 2001; Hiller, 2001; Phipps, 2001; Ryan, 2006), and performance measurement in academic libraries (for example: Brophy, 2006; Chim, 2007) as a means of assessing whether library services are fit for purpose. LibQUAL+™, the quality service instrument already mentioned, is frequently referred to in the context of customer satisfaction in library literature (for example: Dole, 2002; Gatten, 2004; Thompson, Cook & Kyrillidou, 2005).

While not explicitly describing customer satisfaction, the measurement of service quality has been used as an indication of customer satisfaction (Holbrook, 1994, p.76; Bolton and Drew, 1994, p.179). This is particularly important in the discussion on the use of service quality instruments in the context of library and information services, as the service quality scores can be construed as indicators of customer satisfaction (Woodberry, 2006). Morris & Barron (1998), Cullen (2001) and Woodberry (2006) claim that measuring customer satisfaction is the most commonly used indicator of library performance. However, it is possible to receive high scores in customer satisfaction surveys and still not be fulfilling the expectations of library customers (Audit Commission, 2002. paragraph 26). 'Satisfying the customer' is not enough (Schneider and Bowen, 1999) and this is supported by Spreng and MacKoy (1996). Customers can say they are satisfied with a product or service but do not remain loyal to the provider. Degrees of satisfaction and consideration of all elements contributing to satisfaction are therefore important, given that Schneider and Bowen (1999) identified that "totally satisfied" customers are six times likely to be loyal than a "satisfied" customer.

A further criticism of focusing on 'just' customer satisfaction is that the impact of the measurement may not illicit the responsiveness from library managers and library staff that will lead to continuous improvement in services and resources (Applegate, 1993, p.535). Measuring customer satisfaction is important, but it is not a single one-off event. The notion of continuous improvement has to be embedded into the culture of any library as the

environment is rapidly changing and the expectations of customers change over time. Understanding customer *value* enables that ongoing focus on service improvement as service objectives and ongoing strategies and actions can be developed to deliver on these values without the constant need to be measuring satisfaction per se. (McKnight 2006; 2007a; McKnight & Berrington, 2008).

Which Processes and Methodologies?

The research methodology employed must be capable of identifying gaps in service delivery, illustrating the difference between what customers expect from the service and the assessment of current performance for that service or suite of services. Ideally, the process would also engage library staff in the research process so that there is a greater degree of understanding of customer perceptions.

A comparison of LibQUAL+™, the Rodski Research Group service quality instrument (which has been used in Australia and which is similar to LibQUAL+™), and the Customer Value Discovery methodology, is provided below, based on personal experience of use of all three methodologies. The organisational requirements were defined by the author in the capacity as library director.

Table 1: Comparison of Library Performance Methodologies against Organisational Requirements

Organisational Requirements	LibQUAL+™	Rodski	Customer Value Discovery
Identified what the customer described as an ideal service	Not explicitly; the customer answers pre-defined questions, but can add comments	Not explicitly; the customer answers pre-defined questions, but can add comments	Yes
Identified existing practices that annoyed and irritated the customer	Not explicitly; the customer answers pre-defined questions, but can add	Not explicitly; the customer answers pre-defined questions, but can add	Yes

	comments	comments	
Provided a gap analysis between the current performance and the desired level	Yes	Yes	Yes
Required the active involvement of the client's staff in the discovery process	No	No	Yes
Provided a gap analysis exposing the difference between customer desires and irritations and what the client's staff thought these would be	Partially; gaps are identified from the perspective of the customer only	Partially; gaps are identified from the perspective of the customer only	Yes
Provided simple, easy to read reports that included Hierarchies of Value and Irritation, capturing all the customer feedback in thematic schemes	No – complex	No – complex	Yes
Supported decision-making about actions to take as a result of evidence	No	No	Yes, facilitated by the Interactive Value Modelling process

As identified in Table 1, the reporting of results in LibQUAL and Rodski instruments is complex. Others have criticised the complexity of LibQUAL+™ reporting. Rozkowski, Baky and Jones (2005) titled their paper "So which score on the LibQUAL+™ tells me if library users are satisfied?" highlighting the difficulty in interpreting the data and charts provided by the LibQUAL+™ instrument. Samples of the Customer Value Discovery charts are provided in Figures 1 and 2, and these highlight the ease with which these can be understood. The Customer Value Discovery process is more expensive than the other two processes, due the use of two external facilitators and the participation time required by library staff.

Figure 1: Sample Diagram of a Student Hierarchy of Value - Performance

Students Hierarchy of Value - Performance

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| POOR | | | | | Current Performance | | | | EXCELLENT |
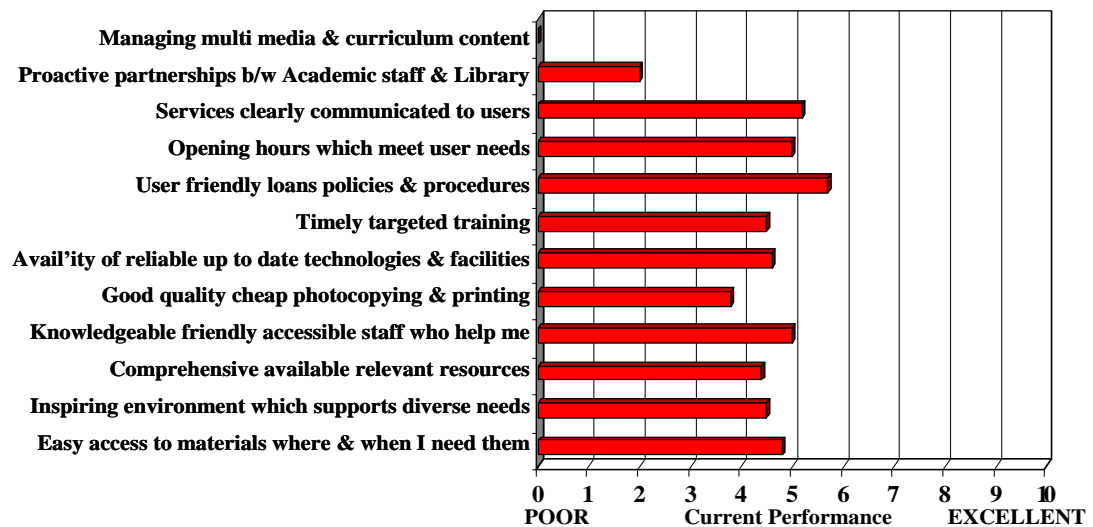
Figure 2: Sample Diagram of a Student Hierarchy of Value – Pareto Chart

Students Hierarchy of Value – Pareto Chart

B   Easy access to materials where & when I need them

A   Inspiring environment which supports diverse needs

G   Comprehensive available relevant resources

H   Knowledgeable friendly accessible staff who help me

C   Good quality cheap photocopying & printing

K   Availability of reliable up to date technologies and facilities

F   Timely targeted training

E   User friendly loans policies & procedures

D   Opening hours which meet user needs

J   Services clearly communicated to users

I   Proactive partnerships between Academic staff and Library

L   Managing multi media & curriculum content
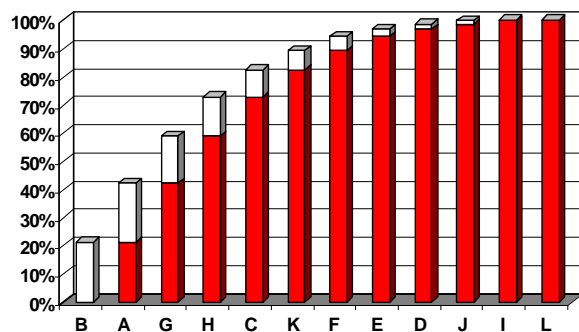
Which Gaps?

Matthews (2007, p.263-264) adapts research undertaken by Wisniewski and Donnelly (1996) to identify five service quality gaps. The *service gap* arises

from the difference between the perceived service and the expected service, requiring the customers to have a prior perception of what excellence looks like for the service being researched. The *understanding gap* is the difference between customer service expectations and the service provider's understanding of customer expectations. The *design gap* is the gap between the service provider's understanding of customer expectations and the design and specifications of service quality. The *delivery gap* is the gap between the specification of service quality and the actual service delivered. The *communications gap* is the difference between what is actually delivered and what has been promised compared to the pervious experiences of the customer with similar services.

The importance of these observations is that reliance on instruments such as LibQUAL+™ and Rodski may not provide all the data that is possible to be obtained from customers about the particular gaps in service delivery that exist from their perspective. Instruments for measuring service quality and performance that use set survey questions are only as good as the quality of the wording of the questions and also the appropriateness of the scope of the set questions. Although the author's research has identified that the value propositions identified by customers through the Customer Value Discovery process are similar to the dimensions covered in the LibQUAL+™ survey instrument, customers do articulate a variety of nuances that are not scoped in LibQUAL+™(McKnight, 2008). Also, these nuances and oral feedback captured throughout the Customer Value Discovery workshops help inform actions that can be used to bridge any of the five types of service gaps.

Customer Value Discovery

Albrecht and Austin (1999) describe value modelling as "a special method for discovering the *critical success factors* for any venture by eliciting views of a selected group of experts (where the experts are the customers) in a structured feedback meeting." A major difference between this methodology and those such as the SERVQUAL, LibQUAL+™ and Rodski instruments is that there are no predefined survey questions; the process starts with a blank

sheet of paper and allows the customer their own voice to describe service excellence.

Customer Value Discovery workshops are held for each unique customer segment, so that participants in a workshop all come from the same basic group (e.g. undergraduate students; postgraduate coursework students; postgraduate research students; off-campus students; international students; etc). There are a maximum number of 15 customers at each workshop because of the need to maximise effective discussion at various parts of the workshop.

In the first part of the Customer Value Discovery workshops, the participants, in silence and individually, use a workbook to identify the top irritants that they perceive about the existing services. The customers then transfer the top priority Irritants onto specially printed sticky notes and score each Irritant in severity (Scale of 1-9) and frequency. These Irritants, on the sticky notes, are gathered immediately for analysis after the workshops.

Then the participants are led through a visioning exercise, where they are asked to imagine what excellence looks like from their perspective, whether it is about a service or product. The workbooks are used to capture thoughts and ideas, and then the individual participant's top issues/ values are transferred to custom printed sticky notes. The participants are then invited to place their sticky notes, with one idea per note, onto a blank wall, where the facilitator leads a process to create thematic sets using an affinity diagram, which makes meaningful lists of similar ideas that resulted from the participants' visioning exercise (Six Sigma, a). The facilitator then seeks a heading for each theme set from the customers present.

The Customer Value Discovery research methodology utilises two key software packages: OptionFinder® is an audience response system, utilising wireless technology and an interactive keypad system that combines audience voting, polling, cross-tabulation, and data reporting tools; and

iThink® that is used to help create models that simulate business processes and scenarios; pointing out the impacts of a new service, procedure or policy.

Any wireless audience response system could be used as long as there was the functionality for 'forced choice comparisons', whereby each identified Value is paired with all other Values in turn and the customers required to vote for the more important item from each pair. Researchers often use a priority and performance evaluation or PAPE survey, utilising a Likert scale, to establish priorities (Matthews, 2007, p.260) and this has also been referred to as Analytical Hierarchy Process (AHP) where the relative importance is ascertained by pair-wise comparisons. (Bayraktaroglu and Özgen, 2008, p.333) However, using the software to force customers to choose the service element provides a robust method of creating a hierarchy of value propositions (and irritations). As not all value propositions are as important as others (though all are important) the definition of the Hierarchy of Value or Irritation helps to define areas for service improvement. Figure 3 demonstrates another way of representing the hierarchies, in addition to the Pareto Chart version, and example of which was provided in Figure 2.

The headings from the themed sets are then keyed into OptionFinder® and the wireless keypads are used to capture the customers' responses (votes) by pairing each heading/Value with all the others through the forced pair comparison function of the software. This leads to the identification of the products/services in a hierarchy of importance or Hierarchy of Value. These Values (and Irritants in a separate exercise) are normalised and ranked, with the highest scoring Value or Irritant rated as 100, and the rest of the Factors then expressed as a percentage of the top scoring Factor.

The participants are then asked to rate the current performance of the existing service/product in the research exercise. This results in a Hierarchy of Value elements and a gap analysis on perception of current performance, which is later analysed at the analysis workshop to identify strategies to close the gaps. The gap analysis between what is important and the customers'

perception of current performance is very useful to identify potential under or over servicing.

During the workshop, a small group of the client's staff (no more than five) participate in the proceedings, but in silence. They vote during the workshop as to how they expect the customer to vote, thus generating a gap analysis between what the customers value and the customers' perception of performance and the assumptions from the client's staff. This is a defining characteristic of the methodology, and the researcher attributes the effectiveness of library staff engagement with the analysis and subsequent actions resulting from the research data because of the personal involvement in the workshops, and the stories or narratives that result from their participation.

A variety of graphical outputs are produced: Hierarchy of Irritation; Hierarchy of Irritation – Frequency; Hierarchy of Irritation – Frequency Gaps; Hierarchy of Irritation – Pareto Chart; Hierarchy of Values; Hierarchy of Values – Gaps; Hierarchy of Values - Performance; Hierarchy of Values – Performance Gaps; Hierarchy of Values – Pareto Chart. An example of a Hierarchy Gap Chart is provided in Figure 3 and a Performance Gap Chart is provided in Figure 4.

Figure 3: Sample Student Hierarchy of Irritants - Gap Chart

Hierarchy of Irritants - Students - Gaps

	Observers	Students

Categories (top to bottom):
- Poor staff service
- Poor physical environment
- Unsatisfactory loan rules
- Poor communication and feedback
- Inadequate library skills training
- Difficulties with printing and photocopying
- Problems with the catalogue
- Service delays
- Limited hours of access
- Difficulties with technology and electronic access
- Collection inadequacies
- Materials not where they're supposed to be

Axis: 0 % 50 % 100 %
LOW   Relative Importance   HIGH

Figure 4: Sample Library Hierarchy of Value – Performance- Gap Chart
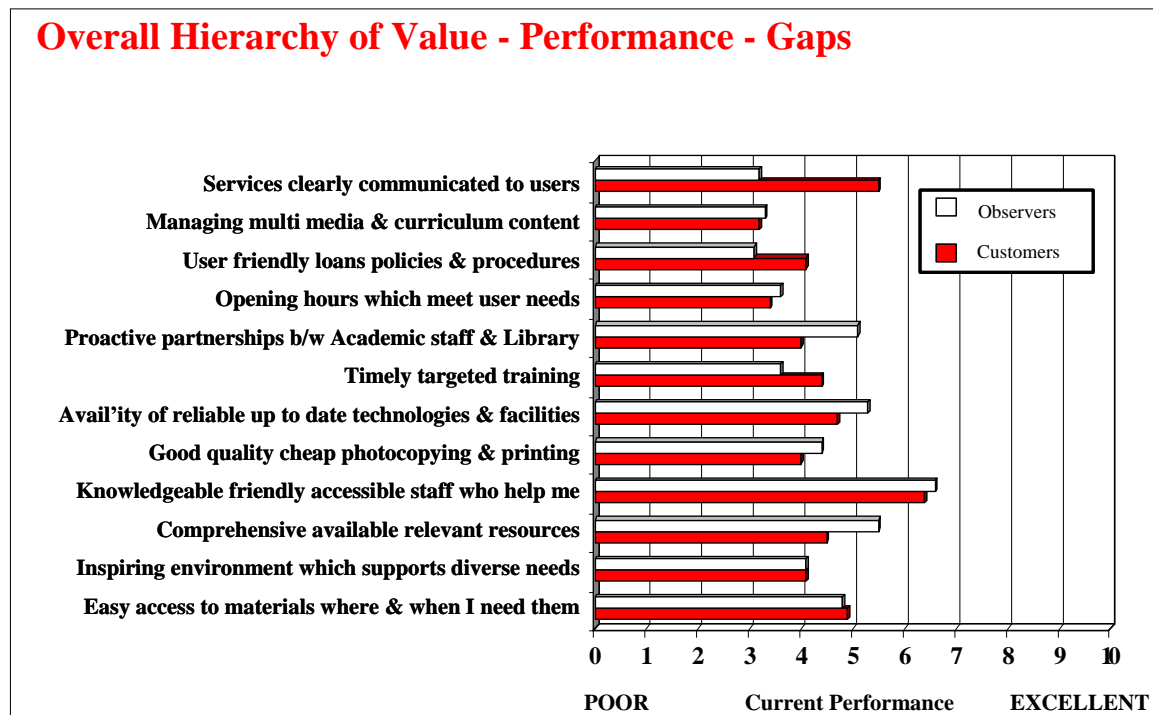
Research by McKnight & Berrington (2008) has demonstrated that there can be a close relationship between identified Values and identified Irritants. Irritants are often expressed by customers as the opposite state of the Value proposition. This is useful when considering how to bridge the gap: focussing on removing irritation is an aspect of reducing the gap; in addition, adding further value to the service in the Hierarchy of Value will help to further reduce the gap between performance and excellence. However, Garvin (1987) stressed that "quality means pleasing consumers, not just protecting them from annoyances" so it is not appropriate to just focus on removing irritations.

Which Expectations?

Regardless of the research instrument, it is obvious that library management action needs to focus on the service areas that are highly valued by customers and where there is a significant gap in performance. To do otherwise may result in wasted effort and resources for little benefit for the

customer. The Pareto Chart gives an excellent view of which value elements warrant investigation to ascertain whether changes to service can be delivered. The top four values in Figure 2: Sample Diagram of a Student Hierarchy of Value – Pareto Chart account for 70% of all value, whereas the bottom six values account for only 10% of customer value. Focusing on the later service areas would not deliver significant improvement for customer perceptions of service excellence.

The Customer Value Discovery charts do not give a total level of satisfaction, but, through the Interactive Value Modelling process, library staff assumptions on their capacity to reduce Irritants and add Value according to the two Hierarchies, are modeled using the iThink® software.

Value runs from the Origin to +100 and Irritation Index runs from the Origin down to -100. The line in the middle is the net value position, calculated by subtracting the Irritants (lower line) from the Values (upper line). The various steps in the lines indicate where the value model was adjusted to include the client interventions based on their assumptions on their capacity to reduce irritation and add value. The model is re-run many times to demonstrate the overall impact of the potential interventions. This is a more sophisticated model for predicting customer satisfaction than is possible with a single survey question, such as the Enterprise Service Quality index (ESQi) (Reichheld, 2003).

Figure 5: Sample Library Service iThink® Dashboard © Enzyme International (Aust.)
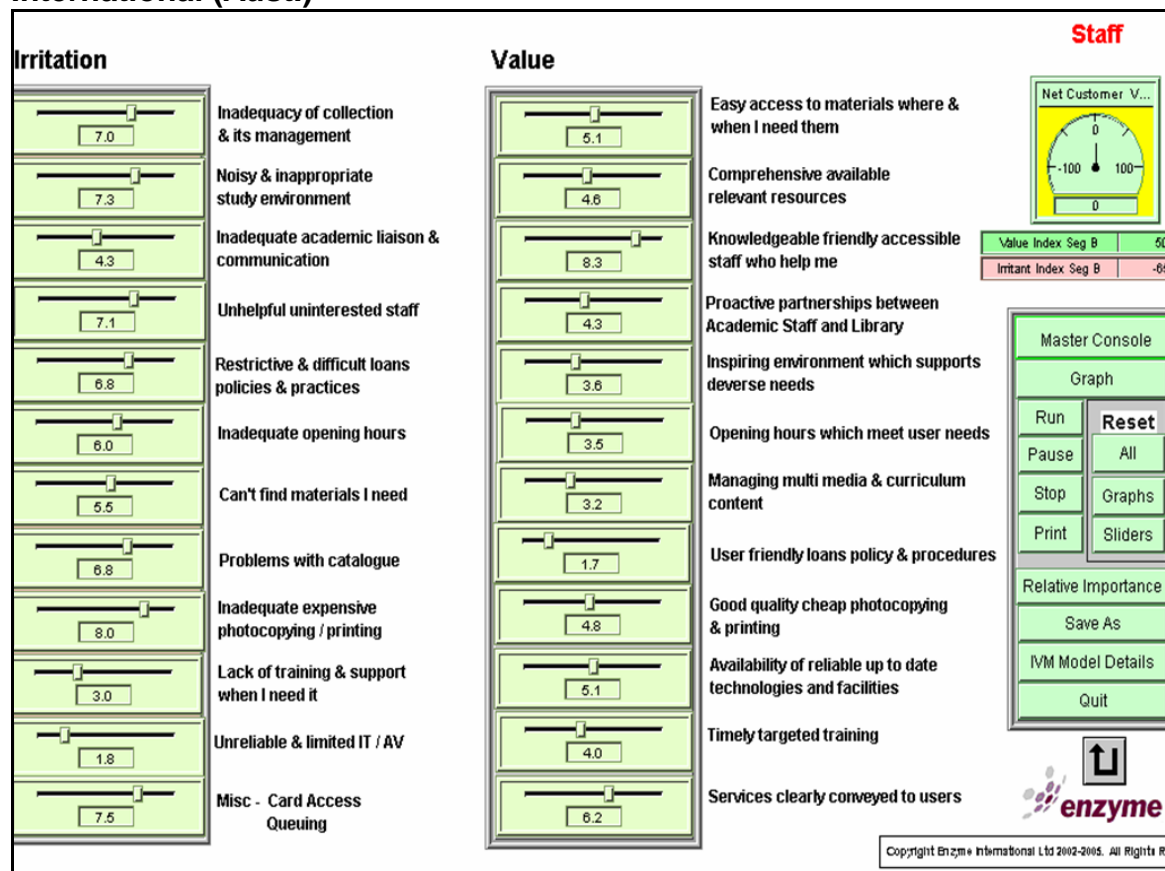
The facilitators build the model prior to the Value Modelling workshop based on the Value and Irritant data that was generated at the Consolidation Workshop. Using the slider bars, assumptions are made by the library staff as to their capacity to reduce irritation and add value on the various factors identified by the customers.

Figure 6: Sample Library Service iThink® Value Graphs © Enzyme International (Aust.)
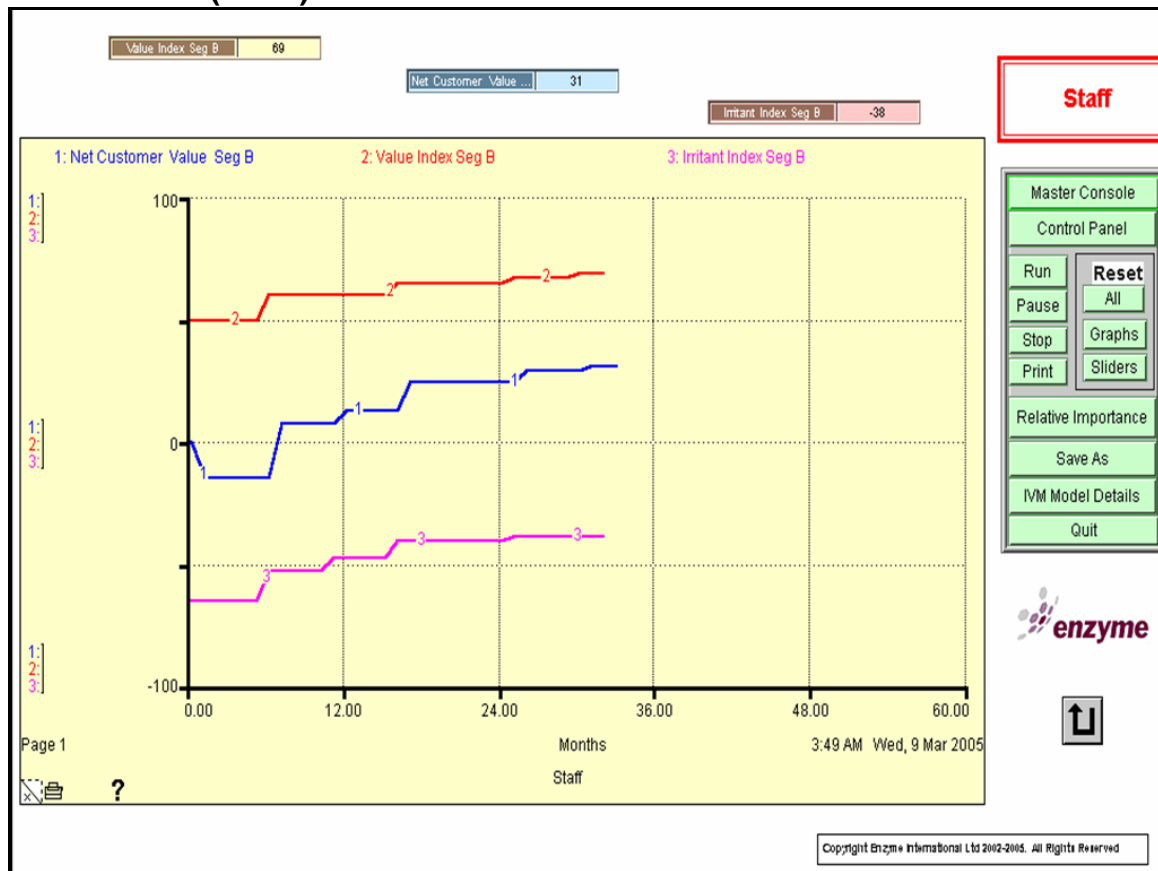
Cultural and Managerial Frameworks for Success

The uniqueness of the Customer Value Discovery process has been emphasised with regard to the engagement of library staff in the workshops, voting as they think the customers will vote on all votes. The software delivers charts showing the gaps between how the staff voted compared to the customer vote. As clearly demonstrated in Figures 3 and 4, the outcomes can challenge staff assumptions. Although, in the examples shown, the vote of Value Performance propositions is largely consistent between staff and customers, the observer gaps are pronounced in the Irritants chart.

By involving library staff in the Customer Value Discovery research process and the subsequent interactive value modelling, they gain an understanding of why changes are necessary and are committed to the change strategy that

they developed as a result of the research. Library staff assumptions are challenged by the gap analyses generated in the workshop voting process.

McKnight (2002) identified that "involving staff in this customer research, by seeking their analysis of the research findings on what adds value for the customer, by their participation in teams established to define what change is required within the organisation to deliver the customer value package, we create an internal environment that is not only ready for change, but which is driving the change from the ground up, rather than imposed from management above. In this way, there is a much greater chance of staff "buy-in" and the change process is much more likely to be successful and sustaining.

Frameworks such as operational or action plans with regular performance monitoring are required to make sure there is formal follow up on any actions taken to bridge the identified gaps in service delivery and performance. Individual performance development and review plans for individual staff also provide the formal support and training required to enable the development of new skills required for enhanced or changed service delivery. These practical issues are acknowledged by Matthews (2007, p.331-332) and Ladhari and Morales (2008, p.362-363) as being important.

The importance of developing and enacting a communication strategy that starts before and continues after the research is undertaken is also stressed. It is important for customers, who want to understand what has happened as a result of the research. "External communications can affect not only consumer expectations about a service but also consumer perceptions of the delivered services". (Parasuraman *et al*, 1985, p. 46) However, it is also important for library staff to see the commitment to actions and the linking of the actions to improved customer satisfaction.

Conclusions

The research described involves the concept of narrative based librarianship as described by Brophy (2004; 2007). The methodology of Customer Value Discovery requires the active participation of library staff that leads to the *telling of stories* within the library service; the linking of actions to the defined values and irritants of customers; the cognitive positioning required for a change of culture that places the customer at the centre of the library service and the acknowledgement that customer experiences and perceptions are their *reality* (McKnight, 2007b). Brophy (2006, p.30) claims that "when the goal of investigation is either increased understanding or purposive action, stories have always been powerful". The narrative is interested in meaning, the significance of the findings, rather than the hard data itself (Brophy, 2007, p.149).

It is particularly important when differentiating the impacts of this research against those of conventional customer satisfaction survey results. Because library staff participate in the Customer Value Discovery processes, they have a personal and emotional involvement with the outcomes; they speak about their experience of listening to customers; of the insights they gained through the process; about the impact the experience has had on them professionally and on the service. This is to be compared and contrasted to the experience of receiving the results of an internal university student satisfaction survey or the results of a LibQUAL+™ survey. Although the customers can provide comments, the narrative is lost to all but those few staff who analyse the results of the survey; and so too is lost the important factor in successfully engaging library staff in cultural change as a result of analysing customer satisfaction results.

In Table 1, the cost of conducting Customer Value Discovery research was identified as a barrier to its use. However, given the importance of engaging library staff in the change process, the cost could be viewed as "learning as an investment, not as an expense" (Slater and Narver, 2000, p.125).

Singh (2009) identifies the importance of marketing and customer focused culture amongst library staff for delivering service quality. Library staff engagement in the Customer Value Discovery process and the follow-up actions, and the creation of the narratives that accompany the research outcomes, helps foster this vital organisational culture.

At Deakin University, Library User Value Statements were created for every market segment researched reflected the actual words used and emphasis placed by the customers, thus personalising the charters (McKnight, 2000). These charters or Value Statements provide a goal to be strived for over time. At Nottingham Trent University the customer values are captured as objectives in annual operational plans, with actions undertaken each year to bridge the gap between service delivery and excellence as defined by the customers themselves. By using the values in this way, the focus on bridging the gap is embedded in a public statement of intention.

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Related Articles

- **PHASE 1 OCDA Scale Results: Psychometric Assessment and Descriptive Statistics for Partner Libraries**
  Paul J. Hanges, Juliet Aiken, Xiafang Chen & Hali Chambers , Report on the University of Maryland results, 2007.
- **Drilling the LibQUAL+® data for strategic planning**
  E. Stewart Saunders , Performance Measurement and Metrics, 9(3) (2008): 160-170.
- **Getting our priorities in order: are our service values in line with the communities we serve?**
  Jocelyn Duffy, Damon Jaggars and Shanna Smith , Performance Measurement and Metrics, 9(3) (2008): 171-191.
- **Library assessment on a budget: using effect size meta-analysis to get the most out of the library-related survey data available across campus**
  Eric Ackermann , Performance Measurement and Metrics, 9(3) (2008): 192-201.
- **Identifying Student and Faculty Needs through LibQUAL+™: An Analysis of Qualitative Survey Comments**
  Sherri Jones and Jessica Kayongo , College & Research Libraries 69 (6) (November 2008):493-509.
- **The impact of supply chain relationships on the quality of services provided by the maritime libraries "Field study"**
  Ola Bayan , Abstract of a dissertation submitted to AASTMT College of Maritime Transport and Technology Postgraduate Maritime Studies Department Alexandria, Egypt (2008).
- **Meeting Academic Needs for Information: A Customer Service Approach**
  E S Saunders , Portal - Libraries and the Academy. Volume: 8 Issue: 4, (October 2008): 357-371.
- **Using Content Analysis Software to Analyze Survey Comments**
  Bradford W. Dennis and Tim Bower , portal: Libraries and the Academy, Volume 8, Number 4, (October 2008): 423-437.
- **Are there common academic library customer values? (1)**
  Susan McKnight , Library Management, 19(6/7) (2008): 600-619.
- **LibQUAL+™ in Iran: A subgroup analysis by gender**
  Hariri, N. & Farideh, A. , Performance Measurement and Metrics, 9(2) (2008): 80-93.

Appendix 2: Title Pages of Original Publications

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Value not Virtual – one library's response to the virtual campus

Sue McKnight
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The purpose statement of Deakin University Library is 'We help people learn.' This applies equally to on or off-campus students, which has meant that the Library has strived to provide innovative resources and services to break down the barriers of geography and time experienced by our remote students. With the advances in information and communication technologies, Deakin University Library has been able to capitalise on these developments to deliver electronic services to both on and off-campus students, thus complementing the valuable services provided by the Library team. While the services provided through the virtual or digital library are a great leap forward, providing access to a wide range of resources and services 24 hours per day x 7 days per week, these services must be seen in conjunction with the professional assistance provided by librarians. Deakin University Library's success is in its customer focus and the value added digital services available through the virtual campus.

DEAKIN UNIVERSITY – IN CONTEXT

Deakin University was created in 1977, as a regional Victorian university based in Geelong, Australia and it has been serving off-campus students since its inception. Today, it has six campuses: three in Melbourne, two in Geelong, and one in Warrnambool. There is 350 km between the furthest campuses and it still retains its regional roots despite the strong presence in Melbourne since the merger with Victoria College.

Deakin University has developed an outstanding reputation for providing tertiary opportunities for students who, for a variety of reasons, do not wish to study in an on-campus mode. In 2000, 15,600 students, of a total population of 28,000, study in a flexible or off-campus mode. (1) Deakin has been named 'University of the Year' twice, in 1995 and again in 1999. The 1995 award was for Deakin's innovative use of information technology to support undergraduate teaching programmes. The Library was highlighted in the citation as an excellent service provider, especially in regard to the services to off-campus students. The 1999 award recognised Deakin's productive partnerships with corporations, government departments and professional associations, providing life-long learning opportunities to

ng 2000

The New Review of Information Networking 2000

Managing Cultural Change: the challenge of merging library services, curriculum development and academic professional development

Sue McKnight

Sue McKnight has been Executive Director, Learning Services and University Librarian at Deakin University, Australia, since 2000. Prior to this she was University Librarian at Deakin, being appointed to that position in 1996. As Executive Director, Sue is responsible for the University's library services, the design, development, production and manufacture of all course material associated with online or distance learning, the management of the library and learning management systems, and the professional development of Faculty staff. Sue has been active in professional associations, being twice president of the Victorian Branch of the Australian Library and Information Association, and also State President of the Australian Council of Library and Information Services. She is also a member of the Open and Distance Learning Association of Australia, the International Council on Distance Education, and an Associate Fellow of the Australian Institute of Management. Currently she is Information Officer of the University and General Research Libraries Section of the International Federation of Library Associations. She holds professional library qualifications, a degree in business and a masters degree in public administration. In 1999, she was recognized by the Australian Library and Information Association as Australian 'Manager of the Year' and was the inaugural winner of the Deakin University Vice-Chancellor's Award for Outstanding Leadership.

Introduction

Change is endemic. It is rapid, and often has significant implications. Some staff are 'change junkies' and others are less able to embrace

change. However, the impact of change on staff in academic libraries is profound, and management have a role in making sure that staff are better able to understand, participate in and manage the change themselves.

Academic libraries are dealing with a multitude of change agents, from budget constraints, increasing use of, and rapid change in information technologies, changes in scholarly publishing, and demands for greater accountability and benchmarking, to devising and implementing new services for an increasingly sophisticated and demanding user population. Many academic libraries are also dealing with converging organizational and service structures, with libraries combining with information technology service departments and teaching support and curriculum development units.

This paper deals with cultural change, which has been described as

> Lasting structural and social changes (within an organization or set of linked organizations), PLUS lasting changes to the shared ways of thinking, beliefs, values, procedures and relationships of the stakeholders.[1]

This discussion is primarily focused on the internal aspects of managing cultural change. It focuses on the cultural change associated with creating a working environment that is a blend of professionals, re-engineering processes, creating new teams, and the overarching need to establish a shared set of values that defines the blended organization.

Much of the internal cultural change has evolved from a focus on the prime customer groups, of understanding their value packages (their hierarchy of needs and desires) and of discovering what irritates them about existing practices, services and resources. The research undertaken to define the customer value packages provided the evidence that drove the internal cultural change.

Deakin University

Deakin's vision is to be Australia's most progressive university, internationally recognized for the relevance, innovation and responsiveness of its teaching and learning, research, partnerships and international activities.[2]

Deakin University was established in 1974 and began teaching in 1977. The University has 70,000 students enrolled each year, and specializes in student-centred education and lifelong learning. It has six campuses across the State of Victoria,

Paper 3 - 2006

IFLA Publications 120/121

Management, Marketing and Promotion of Library Services Based on Statistics, Analyses and Evaluation

Edited by

Trine Kolderup Flaten

LIBRARIES WITHOUT WALLS 6

evaluating the distributed
delivery of library services

Proceedings of an international conference held on 16–20 September 2005,
organized by the Centre for Research in Library and Information Management
(CERLIM), Manchester Metropolitan University

EDITED BY
Peter Brophy
Jenny Craven
Margaret Markland

facet publishing

Contents

Paper 5 - 2007

Evidence Based Library and Information Practice

Article

Acquisition and Cataloguing Processes: Changes as a Result of Customer Value Discovery Research

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Abstract

Objective - This study seeks to highlight the profound effect of Customer Value Discovery research on the internal business processes of two university libraries in the areas of cataloguing and acquisitions.

Methods - In this project, "Customer Discovery Workshops" with academic staff, students, and university stakeholders provided library managers and staff with information on what services and resources were of value to customers. The workshops also aimed to discover what features of existing library services and resources irritated the students, staff, and faculty.   A student satisfaction survey assessed longer-term impact of library changes to students in one university.

Results - The findings resulted in significant changes to collection development, acquisitions, and cataloguing processes. A number of value added services were introduced for the customer. The project also resulted in greater speed and efficiency in dealing with collection development, acquisitions, and cataloguing by the introduction of more technology-enhanced services. Overall customer satisfaction was improved during the project period.

Conclusion - The changes to services introduced as a result of customer feedback also improved relationships between librarians and their university community, through the introduction of a more proactive and supportive service.

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Are there common academic library customer values?

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Abstract

Purpose – This paper endeavours to provide answers to the following questions: Is there a correlation between what library customers value and the questions asked in benchmarking satisfaction surveys? Is there a core set of academic library customer values? Are there differences between what academic library customers value in Australia when compared to their counterparts in England? Do library customer values change over time?

Design/methodology/approach – The results of two similar university libraries' customer value discovery research are compared with each other, and also with the question set in the LibQUAL+™ survey. As the customer value discovery research was undertaken six years apart, the results are compared to see if there has been change over time.

Findings – Academic library customers identified a core set of values, and these values mapped reasonably well to the LibQUAL+™ instrument. However, there were unique value factors identified by the various customer segments that did not map. Some questions in LibQUAL+™ were more detailed in their exploration of library staff attributes than customers identified in their value proposition. Customers identify their values +without reference to library jargon.

Originality/value – The paper shows that customer value discovery and LibQUAL+™ are both valuable management tools that identify services and resources of importance to library customers.

Keywords Libraries, Customers, Customer satisfaction, Cross-cultural studies

Paper type Research paper

1. Introduction and study problem

The effective and efficient management of a library service requires maximising return on investment, not necessarily in a commercial sense, but by being certain that budget allocations and staff deployment are targeted to areas that will deliver value to library customers. Therefore, it is incumbent to know what services customers value to ensure that all decision making is based on data and not assumptions. But do we really know what library customers value?

Library user satisfaction surveys are used internationally to gauge the performance of a library. Tools such as LibQUAL+™ Service Quality Survey and the Rodski Student Satisfaction Survey are used in Australia to measure student satisfaction with university library services, with the former in wide use in the higher education sector in the UK. These survey instruments use a suite of common questions that enable benchmarking of library services within the sector to ascertain how well one is performing against others. While this can be very useful, the question remains whether a service is delivering value to its customer base.

There is very little in the library-related professional literature about values *per se*, although Warnaby and Finney (2005) write about "creating customer value" at the British Library. Is there a correlation of what library customers value and the questions that are asked in benchmarking satisfaction surveys? Is there a core set of

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Evidence Based Library and Information Practice

Improving Customer Satisfaction: Changes as a Result of Customer Value Discovery

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Abstract

Objective: To identify Gold Standard Services for customers in an academic library and determine whether interventions following the identification of customer value increased student satisfaction.

Methods: "Customer Discovery Workshops" were undertaken with academic staff and undergraduate on-campus students to provide managers and library staff with information on the services and resources that customers valued, and what irritated them about existing services and resources. The impact of interventions was assessed two years after the research using a university student satisfaction survey and an independent national student satisfaction survey.

Results: The findings resulted in significant changes to the way forward-facing customer services were delivered. A number of value adding services were introduced for the customer. Overall customer satisfaction was improved.

Bridging the gap between service provision and customer expectations

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Abstract

Purpose – The purpose of this paper is to serve as a reminder to all managers that they must understand their customers, from the customers' perspective, and not make assumptions about customer needs.

Design/methodology/approach – Customer value discovery workshops are held with undergraduate on-campus students and academic staff at Nottingham Trent University to identify customer values and irritations. Library staff participate in the workshops and vote as they expect their customers to vote. The gaps identified between staff assumptions of customer perceptions of service importance and performance serve as a catalyst for staff engagement in the change process that is necessary to deliver on the value propositions and reduce customer irritations.

Findings – Library staff assumptions of customer perceptions are not always accurate. The gaps identified help to engage staff in the change process that is necessary to improve perceptions of value and to reduce irritations. By explicitly addressing the value propositions with the aims of adding value and reducing irritation, student satisfaction with library services, as measured by two independent satisfaction surveys, improves considerably.

Research limitations/implications – The research is based on two customer segments of one university library. The research should be repeated after a gap of three-four years to check if the value propositions and irritations have changed in that time. If so, the goals of the library's operational plan would have to change to reflect the new value propositions.

Practical implications – A comparison of the Customer Value Discovery methodology with LibQUAL + ™, which is used internationally, and the Rodski Research Group's method, used in Australia and New Zealand, is given.

Originality/value – The Customer Value Discovery methodology is most often used in the commercial sector. This paper explores its potential in the not-for-profit sector in the context of a university library service.

Keywords Customer service management, Customer satisfaction, Performance measures, University libraries

Paper type Research paper

Introduction

The title of this paper raises a number of questions that require answering before addressing the fundamental issue of bridging the gap between service provision and customer expectations. The questions are: Which customers? Which gaps?

Different customers have different service needs and expectations. It is important, therefore, to make sure the research and actions arising from the research address the problems faced by customers. Management responses to any identified gaps between perceived expectations and perceived performance will have to be tailored to meet the needs of the particular customer segments.

Appendix 3: Statement on Multiple Authorships

Regarding Paper 7

From: Berrington, Mike
Sent: 30 July 2008 00:07
To: Mcknight, Sue
Subject: RE:

I declare that the paper jointly authored with Susan McKnight has not been used in any other submission for an academic award.

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Appendix 4: Overall Charts for the Customer Value Discovery Research at Nottingham Trent University

Overall Hierarchy of Irritation

Don't like card access policies
Lack of training & support when I need it
Queuing for service
Problems with catalogue
Inadequate opening hours
Inadequate academic liaison & communication
Unreliable & limited IT / Av
Unhelpful uninterested staff
Can't find materials I need
Restrictive & difficult Loans policies & practices
Inadequate expensive photocopying / printing
Noisy & inappropriate study environment
Inadequacy of collection & its management

0%   50%   100%

LOW   Relative Severity   HIGH

Overall Hierarchy of Irritation - Gaps

Don't like card access policies
Lack of training & support when I need it
Queuing for service
Problems with catalogue
Inadequate opening hours
Inadequate academic liaison & communication
Unreliable & limited IT / Av
Unhelpful uninterested staff
Can't find materials I need
Restrictive & difficult Loans policies & practices
Inadequate expensive photocopying / printing
Noisy & inappropriate study environment
Inadequacy of collection & its management

☐ Observers
■ Customers

0%   50%   100%

LOW   Relative Severity   HIGH

340

Overall Hierarchy of Irritation - Frequency

Overall Hierarchy of Irritation - Frequency - Gaps

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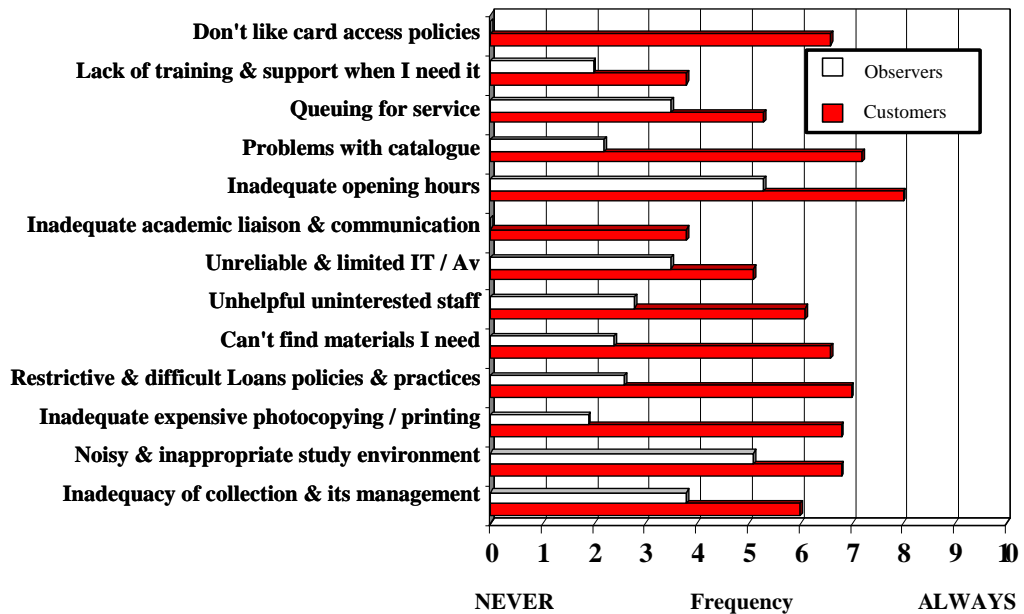
Overall Hierarchy of Irritation – Pareto Chart

K   Inadequacy of collection & its management

C   Noisy & inappropriate study environment

D   Inadequate expensive photocopying / printing

H   Restrictive & difficult Loans policies & practices

F   Can't find materials I need

I   Unhelpful uninterested staff

B   Unreliable & limited IT / Av

J   Inadequate academic liaison & communication

A   Inadequate opening hours

M   Problems with catalogue

E   Queuing for service

G   Lack of training & support when I need it

L   Don't like card access policies

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Hierarchy of Irritation – Comparative

Academics
Students

| Don't like card access policies |
| Lack of training & support when I need it |
| Queuing for service |
| Problems with catalogue |
| Inadequate opening hours |
| Inadequate academic liaison & communication |
| Unreliable & limited IT / Av |
| Unhelpful uninterested staff |
| Can't find materials I need |
| Restrictive & difficult Loans policies & practices |
| Inadequate expensive photocopying / printing |
| Noisy & inappropriate study environment |
| Inadequacy of collection & its management |

0%   50%   100%

LOW   Relative Severity   HIGH

Note: Irritants are ranked in order of Severity for all segments combined

Hierarchy of Irritation - Frequency – Comparative

Academics
Students

| Don't like card access policies |
| Lack of training & support when I need it |
| Queuing for service |
| Problems with catalogue |
| Inadequate opening hours |
| Inadequate academic liaison & communication |
| Unreliable & limited IT / Av |
| Unhelpful uninterested staff |
| Can't find materials I need |
| Restrictive & difficult Loans policies & practices |
| Inadequate expensive photocopying / printing |
| Noisy & inappropriate study environment |
| Inadequacy of collection & its management |

0 1 2 3 4 5 6 7 8 9 10

NEVER   Frequency   ALWAYS

Note: Irritants are ranked in order of Severity for all segments combined

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Irritants Table

These Irritants were then normalised and ranked, with the highest scoring Irritant rated at 100, and the rest of the Factors then expressed as a percentage of the top scoring Factor.

	Overall Irritants	Normalised		Frequency		Pareto	
		Cust.	Staff	Cust.	Staff	%	Cum. %
K	Inadequacy of collection & its management	100	100	6.0	3.8	25.9%	25.9%
C	Noisy & inappropriate study environment	46	52	6.8	5.1	11.8%	37.7%
D	Inadequate expensive photocopying / printing	39	11	6.8	1.9	10.1%	47.8%
H	Restrictive & difficult Loans policies & practices	37	9	7.0	2.6	9.5%	57.3%
F	Can't find materials I need	36	40	6.6	2.4	9.4%	66.8%
I	Unhelpful uninterested staff	32	33	6.1	2.8	8.2%	75.0%
B	Unreliable & limited IT / Av	31	48	5.1	3.5	8.1%	83.1%
J	Inadequate academic liaison & communication	13	0	3.8	0.0	3.5%	86.5%
A	Inadequate opening hours	13	15	8.0	5.3	3.3%	89.8%
M	Problems with catalogue	12	4	7.2	2.2	3.1%	93.0%
E	Queuing for service	11	4	5.3	3.5	2.9%	95.9%
G	Lack of training & support when I need it	8	8	3.8	2.0	2.1%	98.0%
L	Don't like card access policies	8	0	6.6	0.0	2.0%	100.0%

Overall Hierarchy of Value

Services clearly communicated to users
Managing multi media & curriculum content
User friendly loans policies & procedures
Opening hours which meet user needs
Proactive partnerships b/w Academic staff & Library
Timely targeted training
Avail'ity of reliable up to date technologies & facilities
Good quality cheap photocopying & printing
Knowledgeable friendly accessible staff who help me
Comprehensive available relevant resources
Inspiring environment which supports diverse needs
Easy access to materials where & when I need them

0%　　　　　50%　　　　　100%

LOW　　　Relative Importance　　HIGH

Overall Hierarchy of Value - Gaps

Services clearly communicated to users
Managing multi media & curriculum content
User friendly loans policies & procedures
Opening hours which meet user needs
Proactive partnerships b/w Academic staff & Library
Timely targeted training
Avail'ity of reliable up to date technologies & facilities
Good quality cheap photocopying & printing
Knowledgeable friendly accessible staff who help me
Comprehensive available relevant resources
Inspiring environment which supports diverse needs
Easy access to materials where & when I need them

Observers
Customers

0%　　　　　50%　　　　　100%

LOW　　　Relative Importance　　HIGH

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Overall Hierarchy of Value - Performance

Services clearly communicated to users
Managing multi media & curriculum content
User friendly loans policies & procedures
Opening hours which meet user needs
Proactive partnerships b/w Academic staff & Library
Timely targeted training
Avail'ity of reliable up to date technologies & facilities
Good quality cheap photocopying & printing
Knowledgeable friendly accessible staff who help me
Comprehensive available relevant resources
Inspiring environment which supports diverse needs
Easy access to materials where & when I need them

0 1 2 3 4 5 6 7 8 9 10

POOR   Current Performance   EXCELLENT

Overall Hierarchy of Value - Performance - Gaps

Services clearly communicated to users
Managing multi media & curriculum content
User friendly loans policies & procedures
Opening hours which meet user needs
Proactive partnerships b/w Academic staff & Library
Timely targeted training
Avail'ity of reliable up to date technologies & facilities
Good quality cheap photocopying & printing
Knowledgeable friendly accessible staff who help me
Comprehensive available relevant resources
Inspiring environment which supports diverse needs
Easy access to materials where & when I need them

☐ Observers
■ Customers

0 1 2 3 4 5 6 7 8 9 10

POOR   Current Performance   EXCELLENT

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Overall Hierarchy of Value – Pareto Chart

B   Easy access to materials where & when I need them

A   Inspiring environment which supports diverse needs

G   Comprehensive available relevant resources

H   Knowledgeable friendly accessible staff who help me

C   Good quality cheap photocopying & printing

K   Availability of reliable up to date technologies and facilities

F   Timely targeted training

I   Proactive partnerships between Academic staff and Library

D   Opening hours which meet user needs

E   User friendly loans policies & procedures

L   Managing multi media & curriculum content

J   Services clearly communicated to users

Overall Hierarchy of Value – Comparative

Services clearly communicated to users
Managing multi media & curriculum content
User friendly loans policies & procedures
Opening hours which meet user needs
Proactive partnerships b/w Academic staff & Library
Timely targeted training
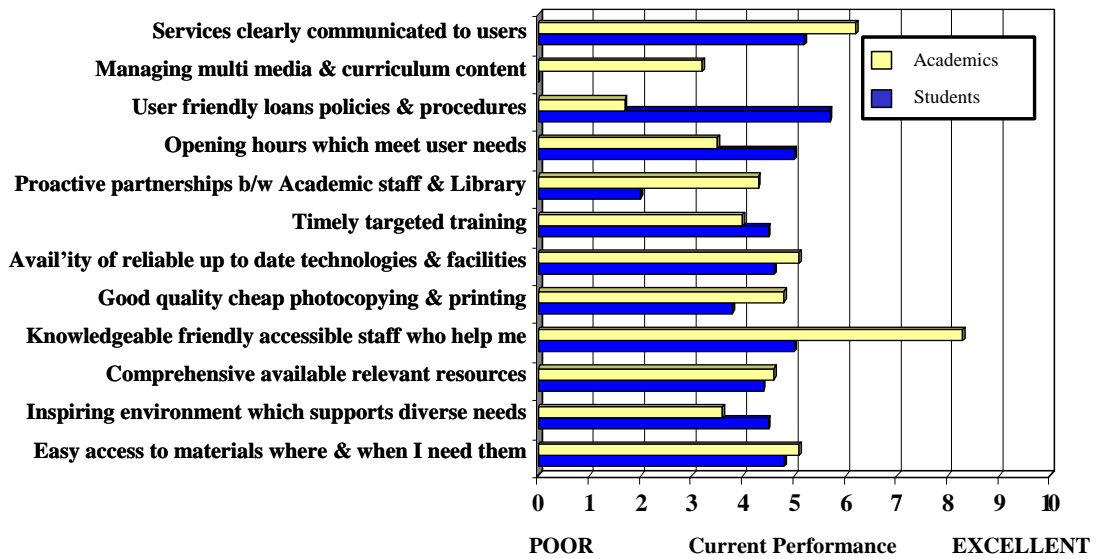Avail'ity of reliable up to date technologies & facilities
Good quality cheap photocopying & printing
Knowledgeable friendly accessible staff who help me
Comprehensive available relevant resources
Inspiring environment which supports diverse needs
Easy access to materials where & when I need them

Academics
Students

0%   50%   100%

LOW   Relative Importance   HIGH

Note: Value Factors are ranked in order of Importance for all segments combined

Hierarchy of Value - Performance – Comparative

Services clearly communicated to users
Managing multi media & curriculum content
User friendly loans policies & procedures
Opening hours which meet user needs
Proactive partnerships b/w Academic staff & Library
Timely targeted training
Avail'ity of reliable up to date technologies & facilities
Good quality cheap photocopying & printing
Knowledgeable friendly accessible staff who help me
Comprehensive available relevant resources
Inspiring environment which supports diverse needs
Easy access to materials where & when I need them

Academics
Students

0   1   2   3   4   5   6   7   8   9   10

POOR   Current Performance   EXCELLENT

Note: Value Factors are ranked in order of Importance for all segments combined

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Value Factors Table

The Value Factors were normalised, with the highest scoring Factor rated at 100%, and the rest of the Factors then expressed as a percentage of the top scoring Factor.

	Overall Value Factors	Normalised		Performance		Pareto	
		Cust.	Staff	Cust.	Staff	%	Cum. %
B	Easy access to materials where & when I need them	100	100	4.9	4.8	22.6%	22.6%
A	Inspiring environment which supports diverse needs	77	41	4.1	4.1	17.3%	39.9%
G	Comprehensive available relevant resources	74	63	4.5	5.5	16.7%	56.6%
H	Knowledgeable friendly accessible staff who help me	65	62	6.4	6.6	14.7%	71.4%
C	Good quality cheap photocopying & printing	33	14	4.0	4.4	7.4%	78.7%
K	Availability of reliable up to date technologies and facilities	24	6	4.7	5.3	5.4%	84.2%
F	Timely targeted training	18	14	4.4	3.6	4.0%	88.1%
I	Proactive partnerships between Academic staff and Library	18	11	4.0	5.1	4.0%	92.1%
D	Opening hours which meet user needs	15	4	3.4	3.6	3.3%	95.4%
E	User friendly loans policies & procedures	10	4	4.1	3.1	2.2%	97.6%
L	Managing multi media & curriculum content	6	4	3.2	3.3	1.3%	98.9%
J	Services clearly communicated to users	5	0	5.5	3.2	1.1%	100.0%