

### SPECIAL ISSUE: Services Marketing

- 5 Editorial  
*James G. Barnes, Greg Elliott & Paul G. Patterson*
- 7 Executive Summaries
- Papers
- 10 Opportunities for Business-to-Business Services  
Scholarship: A Commentary  
*Stephen W. Brown*
- 13 New Service Development and Competitive Advantage:  
A Conceptual Model  
*Jay Weerawardena & Janet R. McColl-Kennedy*
- 24 Predicting Personal Loyalty to a Service Worker  
*Liliana L. Bove & Lester Johnson*
- 36 Establishing Customer Relationships on the Internet Requires  
More Than Technology  
*James G. Barnes & Judith A. Cumby*
- 47 The Effects of a Change in Customer Disposition on the Zone  
of Tolerance: A Longitudinal Study  
*James F. Devlin, Anne L. Gwynne  
& Christine T. Ennew*
- 59 Innovation in Services: The Need for Knowledge Management  
*Chris Storey & David Kelly*
- 72 Notes for Contributors

# amj

## Editors

Professor Paul Patterson and Professor Mark Uncles

School of Marketing, University of New South Wales  
SYDNEY NSW 2052 AUSTRALIA

Phone: (IDD) 61 2 9853 3652

Email: [amj@unsw.edu.au](mailto:amj@unsw.edu.au)

Fax: (IDD) 61 2 9663 1985

Web-site: [www.marketing.unsw.edu.au/amj](http://www.marketing.unsw.edu.au/amj)

## Editorial Review Board

*Frank Alpert*, Griffith University

*Kwaku Atuahene-Gima*, City University of Hong Kong

*Mike Brennan*, Massey University

*Rod Brodie*, University of Auckland

*Jack Cadeaux*, University of New South Wales

*S. Tamer Cavusgil*, Michigan State, USA

*Sylvie Chetty*, Massey University

*David Corkingdale*, University of South Australia

*Peter Danaher*, University of Auckland

*Ko de Ruyter*, University of Maastricht, Netherlands

*Robert East*, Kingston Business School, UK

*Mark Gabbott*, Monash University

*Brendan Gray*, University of Otago

*Robert T. Green*, University of Texas,  
Austin and Thammasat University, Thailand

*Janet Hoek*, Massey University

*Denise Jarratt*, Charles Sturt University

*Lester Johnson*, Mt Eliza Business School

*Kissan Joseph*, University of Kansas, USA

*Scott Koslow*, University of Waikato

*Rob Lawson*, University of Otago

*Xiongwen Lu*, Fudan University, China

*Ken Miller*, University of Technology, Sydney

*Dick Mizerski*, University of Western Australia

*Janet McColl-Kennedy*, University of Queensland

*Tony Pecotich*, University of Western Australia

*Chad Perry*, Southern Cross University

*Pascale Quester*, University of Adelaide

*Michael Polonsky*, Victoria University of Technology

*John Roberts*, AGSM, University of New South Wales

*John Rossiter*, University of Wollongong

*Byron Sharp*, University of South Australia

*Tasman Smith*, Thammasat University, Thailand

*Geoffrey Soutar*, University of Western Australia

*Chin Tiong Tan*, Singapore Management University

*Robert E Widing*, University of Melbourne

*Ian Wilkinson*, University of New South Wales

*Jochen Wirtz*, National University of Singapore

*Moonkyu Lee*, Yonsei University, Korea



**Australian & New Zealand Marketing Academy**

ABN No. 50 289 210 000

### SPECIAL ISSUE: Services Marketing

- 5 Editorial  
*James G. Barnes, Greg Elliott & Paul G. Patterson*
- 7 Executive Summaries  
Papers
- 10 **Opportunities for Business-to-Business Services  
Scholarship: A Commentary**  
*Stephen W. Brown*
- 13 **New Service Development and Competitive Advantage:  
A Conceptual Model**  
*Jay Weerawardena & Janet R. McColl-Kennedy*
- 24 **Predicting Personal Loyalty to a Service Worker**  
*Liliana L. Bove & Lester Johnson*
- 36 **Establishing Customer Relationships on the Internet Requires  
More Than Technology**  
*James G. Barnes & Judith A. Cumby*
- 47 **The Effects of a Change in Customer Disposition on the Zone  
of Tolerance: A Longitudinal Study**  
*James F. Devlin, Anne L. Gwynne  
& Christine T. Ennew*
- 59 **Innovation in Services: The Need for Knowledge Management**  
*Chris Storey & David Kelly*
- 72 Notes for Contributors

#### Special Issue Editors

*James G. Barnes,  
University of Newfoundland,  
Canada*

*Greg Elliott,  
Macquarie Graduate School  
of Management*

*Paul G. Patterson,  
School of Marketing,  
UNSW*

# amj

## Submissions, Subscriptions and Advertising

Notes for contributors can be found at the end of the journal

*The amj is the official journal of the Australian & New Zealand Marketing Academy (ANZMAC). It is also published in association with the Australian Marketing Institute. For Further information about ANZMAC consult the website: <http://www.anzmac.org>*

---

### Editorial Enquiries

Nadia Withers

Editorial Assistant, *amj*

Phone: IDD (612) 9385 3652

Fax: IDD (612) 9663 1985

E-mail: [amj@unsw.edu.au](mailto:amj@unsw.edu.au)

Web-site: [www.marketing.unsw.edu.au/amj](http://www.marketing.unsw.edu.au/amj)

### Permission

Permission is granted to individuals to photocopy a single article for personal reference. However, written authorisation is required for multiple copying of articles or copying the entire journal.

### Postal Address

*amj*

School of Marketing

University of New South Wales

UNSW SYDNEY NSW 2052

AUSTRALIA

### Courier Delivery Address

*amj*

School of Marketing

University of New South Wales

Room 316, John Goodsell Building (F20)

Enter via Gate 8, High Street

KENSINGTON NSW AUSTRALIA

---

ISSN 1441-3582

© Australian & New Zealand Marketing Academy 2002

## Editorial

If the 20th century is seen as closely associated with the development and success of the modern industrial corporation, then the 21st century is likely to be seen as similarly associated with a new industrial order in which service organisations take centre stage. In fact even today we live in economies where often more than 70% of annual wealth is produced by services. At the beginning of the new millennium, most business school academics would recognise that services marketing and management issues have become “*mainstream*”. There would be very few firms or industries (or indeed countries) that would not acknowledge that the management and marketing of their services have become key “*drivers*” of their long-term success. Consequently, there has developed a wide body of literature and research devoted to examining and understanding the important issues, theories, research techniques and managerial challenges in the field of services marketing and management. In this context, the American Marketing Association’s (AMA) Services Marketing Special Interest Group (SERVSIG) has developed as a focal organisation for both researchers and practitioners in the field.

It is against this background, and with the support of the previous conference Chairs, Professor Ray Fisk (University of New Orleans) and the late, and esteemed, Dr Liam Glynn of University College Dublin, that the Macquarie University Graduate School of Management (MGSM) in Sydney, hosted the second SERVSIG Services Research Conference in May 2001.

Our thanks therefore must go to the American Marketing Association and Macquarie Graduate School of Management for granting permission to print a selection of the best papers from the conference.

### The Conference Structure

The Conference was co-chaired by Greg Elliott of MGSM and Jim Barnes of Memorial University, Newfoundland, Canada. Following the approach adopt-

ed for New Orleans, there were five key tracks for the Conference. Two tracks addressed general theoretical and research concerns. The remaining three were chosen to reflect industry and geographical concerns and differences. The track titles and chairs were as follows:

- Services Theory and Management  
*Dwayne D. Gremler, Bowling Green State University, Ohio*
- Services Research  
*Paul G. Patterson, University of New South Wales*
- Hospitality, Tourism, Sports and Leisure  
*John Bowen, University of Nevada, Los Vegas*
- Services Marketing in Asia-Pacific  
*Janet R. McColl-Kennedy, University of Queensland*
- Professional Services  
*Gillian Hogg, Glasgow Caledonian University*

In addition, three excellent key-note presentations were delivered by Caroline Trotman of Accenture, Steve Brown of the Center for Services Leadership at Arizona State University and Christian Gronroos of Swedish School of Economics. Each provided a different and thought-provoking perspective on the theoretical and practical challenges confronting researchers and managers in the services marketing and management domain.

### Invited Papers

Over one hundred delegates attended and presented papers on a wide range of services marketing and management issues. From this plethora of papers, five were selected for publication in a Special Services Issue of *amj*. In addition, Professor Steven Brown of Arizona State University allowed us the print his keynote address in this special issue. The five selected papers cover a wide spectrum of services issue, with Weerawardena and McColl-Kennedy developing a conceptual model of new service development that is largely based on the degree

of entrepreneurial intensity and learning capabilities residing in service firms. Bove and Johnson present empirical findings showing how commitment and trust engender personal customer loyalty to individual service workers, and that this personal loyalty is likely to result in customer defections should key service employees move to a competing service firm. Barnes and Cumby examine a contemporary and important issue of how firms might best go about developing genuine relationships with customers on the Internet. Devlin et al show in a longitudinal setting, how adequate and desired

expectations, and hence the zone of tolerance, are impacted by changing customer dispositions (attitudes) over time. Finally Storey and Kelly report the findings of a study into the effect of knowledge management on the new service development process. They found a strong relationship between three key dimensions of knowledge management (knowledge creation, knowledge transfer, and knowledge storage) and the success and innovativeness of new service development programs.

*James G. Barnes, Greg Elliott, & Paul G. Patterson*

## Executive Summaries

---

### **Opportunities for Business-to-Business Services Scholarship: A Commentary**

*Stephen W. Brown*

Services marketing has grown and matured as an area of study, but its research remains mired in a consumer market context. The growth in services marketing practice today, however, is in business markets. This article strives to increase the awareness of this contemporary phenomenon and encourage scholarly work in business-to-business services.

### **New Service Development and Competitive Advantage: A Conceptual Model**

*Jay Weerawardena and Janet R. McColl-Kennedy*

The rapidly increasing contribution of service industries to economic growth has attracted the attention of both academic researchers and practitioners. Practitioners will benefit by a theory of new service development (NSD) that can be used to describe factors leading to services innovation, and to explain how services innovations enable firms to gain competitive advantage. In an effort to address this need our paper presents a model of NSD, which represents the middle ground between the current status of literature and a limited domain theory of NSD.

The model we present in this paper represents a novel set of theoretical relationships, which have not been explored in prior research and that are based on the capability-based theory of competitive advantage. This theory suggests that firms having distinctive capabilities gain competitive advantage and capabilities are built and nurtured by entrepreneurial key decision-makers of firms. The advantages can be sustained only if the competitors cannot duplicate services innovations and the firm's distinctive capabilities.

Innovations reflect a firm's level of knowledge and therefore firms pursuing NSD strategy to gain competi-

tive advantage must have distinctive learning capabilities. Accordingly, we argue that entrepreneurial firms pursuing a services innovation-based competitive strategy possess distinctive capabilities in market-focused, internally-focused and relational learning. Empirical evidence supports this proposition. The model also argues that higher degrees of services innovation enable firms to out-perform competitors.

The model suggests a feasible path to build sustained competitive advantage through services innovations. Firms pursuing services innovation-based competitive strategy must build and nurture distinctive learning capabilities. The model also captures the strategic role played by key decision-makers in the capability building activity. Public policies aimed at encouraging service firm innovation should facilitate the development of learning capabilities and should include customers as 'co-producers' of new services.

### **Predicting Personal Loyalty to a Service Worker**

*Liliana L. Bove & Lester Johnson*

When a customer's attitude towards a service worker is high relative to other service workers at the firm, and the customer's level of use of this worker for service delivery is very high, if not exclusive, then personal loyalty is said to exist. This research provides support that customer trust of and commitment to an individual service worker are significant predictors of personal loyalty. Further, although there is anecdotal evidence to suggest that some customers follow service workers when they leave the organisation, this study provides empirical support for that assertion. The results clearly show that the degree of personal loyalty a customer has for an individual service employee, is a significant predictor of customer intentions to defect the organisation in the event that the service worker leaves the firm.

A measure of personal loyalty is important to managers

of service firms where the service worker provides the primary service to the customer as in the case of personal and professional services, or acts as a major conduit to receiving the service as in the case of sales personnel. Although personal loyalty limits the operational flexibility of the service business as the customer refuses to be served by any available service worker, by default it provides the firm with high behavioural loyalty. Managers can either attempt to erode the level of personal loyalty by exposing the customer to other high quality service personnel, or perhaps what is simpler is if managers pay greater attention to employee transfer and retention practices. In this day of intense competition, employees offer service firms an inexpensive and sometimes easily overlooked opportunity to retain valued customers.

### **Establishing Customer Relationships on the Internet Requires More Than Technology**

*James G. Barnes & Judith A. Cumby*

The establishment of a Web presence is a given in business today as managers attempt to meet customers' expectations for convenience and access. Often the foray to the Internet is made more with a focus on technology and what technology can do to an organisation's customers rather than with an appreciation of what should be done for customers. Such practices discount what it is that clients truly value, and in so doing, erode or destroy genuine customer relationships.

The authors analyse recent research into the profiles of Internet users and their expectations when entering into technology-based relationships. Interesting distinctions arise as to what it is that customers enjoy or look for from their Internet interactions. Such differences reflect the importance of emotional and other interpersonal dimensions of true customer relationships. Understanding the profiles of these customer segments – their expectations and behaviors – is essential for companies seeking to preserve the relationships with customers that they have enjoyed in the offline setting.

The authors offer suggestions that should promote the all-important progression from value creation to customer satisfaction, repeat patronage, loyalty, a feeling of closeness, solid customer relationships, and, eventually, to increased profits for the firm. Such an approach should mitigate the risk to organisations of becoming a commodity and being taken for granted by consumers, thereby precluding the creation of true customer value.

### **The Effects of a Change in Customer Disposition on the Zone of Tolerance: A Longitudinal Study**

*James F. Devlin, Anne L. Gwynne & Christine T. Ennew*

Generally, customers have expectations of service which will have an important impact upon whether or not they are satisfied with service encounters. Customers will probably also have different levels of expectations. They have "desired" expectations, which is what they would hope to receive from an "excellent" organisation. They also have "adequate" expectations which are the level the customer will generally accept as sufficient, but which are lower than desired expectations. The area in between the two levels of expectations has been called the Zone of Tolerance.

This study shows that desired expectations are stable over time and do not change when customers become generally more positively or negatively disposed towards a service. However, those developing a more positive overall attitude towards a service over time are likely to become more demanding in terms of adequate expectations. That is to say, if customers like the service they are receiving, then the level of service regarded as adequate will rise (and the size of the Zone of Tolerance will decrease). This may not appear surprising, but it had been suggested time and again in the marketing and quality literature that the opposite is true in that if customers like the service they are receiving they may "cut an organisation some slack" and lower the level of service deemed adequate. In the light of these findings, managers need to ensure that they do not become complacent as regards seemingly happy and "positively disposed" customers. While the conventional wisdom is that firms must delight customers to ensure repeat business and loyalty, our results indicate that such customers become more demanding regarding what they consider to be their adequate expectations. Thus, it becomes increasingly difficult for managers to ensure that adequate expectations are exceeded and that the outcome is within the zone of tolerance. In other words, and in the spirit of continuous improvement, customers keep "raising the bar". In essence then it may become ever more difficult to delight such customers and managers will need to work hard to meet such a challenge.

### **Innovation in Services: The Need for Knowledge Management**

*Chris Storey & David Kelly*

The aim of this research was to identify the underlying

dimensions of knowledge management (KM), and to assess the relative importance of KM for one vital area of a service firm's activities - new service development (NSD). In order to carry out NSD successfully firms must create knowledge that is relevant to NSD, transfer this knowledge throughout the organisation's members and departments, and store it in a form that makes it easily retrievable by staff and management who have need of it.

Based on results of a large survey of UK-based service companies, a number of underlying dimensions of KM activities are identified. Knowledge creation consists of a learning culture, an entrepreneurial climate, organisational creativity and a shared vision. Knowledge transfer is characterised by collaborative working, rich communication, empowerment and shared knowledge. Knowledge storage comprises knowledge systems, decision systems and documentation.

The relationship between these factors and the performance of the firm's NSD programme was explored. All factors were found to have a significant impact on the overall success of NSD. Service businesses need to establish appropriate cultures, structures, incentives, systems, and processes that allow knowledge creation, transfer and storage to happen as part of daily business. This should help create an organisation that is responsive to change and supportive of new product initiatives, and

to achieve a long-term competitive advantage.

However the relative importance of these factors depends on the measure of performance employed:

- Collaborative working is the most important factor for developing innovative new services. Collaboration between different departments and different people in the organisation enables new and original thinking to be brought to particular problems. This needs to be supported by the right climate in the organisation in order to enable knowledge creation.
- Knowledge transfer heavily affects sales from new services. Organisations that are undergoing significant growth, driven by new services, need to remain flexible to maintain this drive. In such organisations storing knowledge is relatively less important than sharing it around the firm to allow people to take decisions quickly. This requires empowerment, extensive personal interaction and collaboration.
- A firm's success rate in developing new services is influenced by shared knowledge and to a lesser extent a learning culture. To reduce the number of failures organisations must learn from past mistakes. It is crucial that errors, omissions, etc. are not repeated ad-nauseam.

## Opportunities for Business-to-Business Services Scholarship: A Commentary

Stephen W. Brown

---

### Abstract

Services marketing has grown and matured as an area of study, but its research remains mired in a consumer market context. The growth in services marketing practice today, however, is in business markets. This article strives to increase the awareness of this contemporary phenomenon and encourage scholarly work in business-to-business services.

*Key words: Services, business marketing, solutions providers.*

---

What company is the world's largest service business? Disney? Citibank? VISA? Based on several measures, the answer is actually IBM or General Electric—two corporations far better known for being marketers of tangible goods. When we discuss the service sector or the service economy, we typically focus on consumer market contexts. Yet, the growth in services marketing is happening most dramatically today in business markets. The intent of this article is to increase awareness of this phenomenon and encourage scholarly work in business-to-business services.

### Market Transformation

IBM has built a recognized brand in IBM Global Services. Services generate more than \$37 billion in annual revenue and employ over half the corporation's work force. Before 1992, services were provided strictly to support IBM products. Then in the mid-90's, services were deployed to maintain account control. Today, IBM regards services as a business in its own right. Outsourced IT operations, systems integration, networking, consulting, education, and product support are just some of IBM Global Services' offerings. Demand for IT services has helped fuel its services' revenue to growth of 15% to 20% annually. Services can also build an annuity-like revenue stream for firms since they are by nature relationship-based and are more likely to be purchased "for the future." IBM has amassed a backlog of service deals of more than \$90 billion. Increasingly, services are pumping the heart of IBM.

Compaq and Hewlett-Packard (HP) offer more recent evidence of goods-dominant companies reinventing themselves as goods-and-services providers. In 2001, for example, Compaq's leadership committed the firm to have 30% of its revenue from services within three years. Yet, this transformation of goods-dominant to goods-and-services firms is not limited to IT. The General Electric (GE) of today is much more than light bulbs and power transformers. Jack Welsh aggressively led GE into engineering, media, medical, financial and consulting services. GE's vision of itself is as a global service company that also sells high-quality products.

Health care is yet another setting where this shift is under way. Manufacturers and suppliers like Johnson & Johnson (J&J), Becton Dickinson (B-D), and McKessonHBOC are striving to help hospitals and other health care entities become more cost effective. Through offering consulting and other services, they are creating broader, deeper and more strategic relationships with customers. Such intimacy supports services expansion and helps these firms become a preferred vendor with hospitals for their traditional products.

When we launched the Center for Services Leadership in the mid-1980s at Arizona State University, the potential of involving firms like IBM or Becton Dickinson was of no interest. Not until the mid-1990s did we realize the significance of services marketing in these and many other goods-dominant companies. Today many of our applied research and management education activities at

ASU are with these enterprises, and IBM, Hewlett-Packard and Ford Motor Company are some of the firms most active in recruiting our MBAs skilled in services marketing and management.

### **Why the Transformation?**

Why is this dramatic transformation happening now in advanced economies? Though manufacturers and distributors have always provided customer service, their “new service” foci takes the much broader form of service product offerings that generate revenues and profits.

### **Customer Demand**

Customer demand is one major reason for the metamorphosis. Global competition and leaps in technology are propelling firms to focus on their core competencies and outsource many of their other business activities. Pitney Bowes has long been the market leader in mailroom equipment for business customers. Yet, few of these customers would consider their mailroom operations to be a core competency. So, over 1,000 firms have hired Pitney Bowes to run their mail operations on an outsourced basis.

The complex and rapid changes in IT are leading more and more businesses to contract with IBM Global Services and others to take over varying degrees of their information services. In many cases, the firms do not even use IBM equipment. Yet, as a true “*solutions provider*,” Global Services provides unbiased counsel on its clients’ future IT purchases.

### **Competition**

Unique competitive challenges are a second reason goods-dominant firms are becoming goods-and-services businesses. Product commoditization is a reality in many industries. Manufacturers are finding it difficult to differentiate their goods, pressuring their profit margins. Service businesses, however, often offer sustainable forms of differentiation, enabling enterprises to achieve more significant margins.

### **Profitability**

This leads to the third reason for services growth; goods-dominant firms are finding that services can be more profitable. This profitability feature is especially true when a firm’s intellectual capital maps out tailored services for clients. Knowledge workers are many firms service products, and their employees’ abilities and experiences enable these firms to benefit from above-market professional fees.

Expanding a goods-based company into services businesses is more difficult than it may seem. European-based consumer food giant Unilever recently launched a business of consulting on food safety—an issue of growing concern to the public. When asked what is the challenge in building a service business, the Vice President of DiverseyLever Consulting said, “*My biggest challenge is educating the product-dominant board members of Unilever about the differences between investing in products versus services businesses.*” Goods typically require a large, up-front investment to realize future financial returns. By contrast, in service businesses the initial investment is comparatively small, but ongoing funding is required to grow the business, often in the form of additional personnel.

### **Customers Need Solutions**

This article’s intent is to point out that goods firms should, and are becoming, goods-and-services businesses. Market leaders like General Electric and IBM are now offering both goods and services. More and more, firms are becoming “solutions providers” on behalf of their customers. To provide solutions of value, most goods-dominant firms must become far more intimate with their customers.

Becton Dickinson, a global health care company, initiated its service expansion by sending its best account executives to call on senior hospital administrators and heads of medical laboratories. In making the calls, the account execs were instructed not to promote or sell anything, but instead to ask these health care leaders what are the challenges they face. “*Instead of touting the benefits of our medical syringes and other products, the account executives listened and learned, and insights learned were overwhelming,*” according to one of B-D Health Care Consulting and Services executives. “*What they heard were detailed insights not fully understood before about the tremendous pressure to reduce operating costs.*”

Becton Dickinson used this feedback as the foundation for developing consultative service offerings to address their customers’ challenges, thus tapping a built-in market. Adding this service dimension is enabling B-D to become a solutions provider for their customers. In turn, their bonds with customers are becoming tighter, with both parties benefiting.

### **Opportunities for Scholarship**

All firms becoming services providers creates enormous opportunities for scholarship. Marketing academics in

general, and services marketing scholars in particular, have long been preoccupied with consumer markets. Yet, the revolution described in this article is especially taking place in business market settings nearly void of services marketing research. This void suggests opportunities for scholars to address important questions such as: what adjustments are necessary in corporate strategy to enable growth of services revenues in goods-dominant enterprises? What factors enhance and inhibit the success of new services? Should a separate strategic business unit be created with a separate sales force to grow services revenue? These and many other questions are confronting a growing number of goods-dominant companies today.

### **Biography**

**Stephen W. Brown**, PhD, holds the endowed Edward M. Carson Chair in Services Marketing and is Professor of Marketing at Arizona State University. He is an interna-

tionally recognized author, academic leader, and business adviser. Co-chair of the biennial International Quality in Service (QUIS) conference, Steve also serves as Director of ASU's Center for Services Leadership (CSL).

Since 1985, the CSL has helped product, manufacturing, distribution, and service firms through its problem-focus research, executive education, and support of the ASU MBA Services Marketing and Management Concentration. The Center partners with global leaders such as AT&T, IBM, Cisco Systems, Ford, Cardinal Health, Harley-Davidson, Marriott, and LensCrafters.

### **Correspondence Address**

Stephen W. Brown, Center for Services Leadership, P.O. Box 874106, College of Business, Arizona State University, Tempe, AZ 85287-4106, USA. Facsimile: 480 965 2180. e-mail: [Stephen.brown@asu.edu.au](mailto:Stephen.brown@asu.edu.au)

# **New Service Development and Competitive Advantage: A Conceptual Model**

Jay Weerawardena & Janet R. McColl-Kennedy

---

## **Abstract**

During the last decade the literature on new service development (NSD) has increased in significance, reflecting the rapidly increasing contribution of services to the economy. A growing number of researchers suggest that NSD leads to service firm competitive advantage. However, the literature on NSD-based competitive strategy is fragmented. This paper attempts to model the antecedents of NSD-based competitive strategy. Specifically, the framework presented in this paper argues that entrepreneurial intensity, distinctive learning capabilities and NSD comprise key components of a model that examines the role of NSD in gaining sustained competitive advantage in service firms. Key theoretical constructs within the model are explored and research propositions presented.

*Keywords: New service development, services, competitive advantage*

---

## **1. Introduction**

Within the rapidly changing business environment there has been a resurgence of interest among marketing researchers regarding the role of innovation in gaining competitive advantage. This literature to date has focused on manufacturing innovation. However, services innovation literature has grown in significance over the last decade, reflecting the increased contribution of service industries to the national economy. But the limited literature on new service development (NSD) remains fragmented.

Although the capability-based theory of sustained competitive advantage has gained prominence in the competitive strategy literature during the last decade, to date it has not been applied to service firms. We argue that entrepreneurial intensity, learning capabilities and NSD comprise key components of a theoretical model that explains how sustained competitive advantage (SCA) may be achieved in service firms.

This paper is structured as follows. First, the links between NSD and SCA are examined. Second, the key propositions of the capability-based theory of SCA are discussed. Third, the foundations of the capability-based model of service firm competitive strategy are developed. Particular attention is given to exploring the key theoretical constructs and developing a core set of

research propositions. Next, the issues relating to the operationalisation of the model are discussed. The paper concludes with a discussion on the implications of the model for theory and practice.

## **2. Literature Synthesis**

### *2.1 New Service Development and Competitive Advantage*

Porter (1985) suggests that firms achieve competitive advantage by conceiving new ways to conduct the activities of the value-chain to deliver superior value to customers, which may be defined as an act of innovation. This suggests that innovation and the competitive advantage process are inter-connected. However, empirical evidence supporting the view that innovation leads to sustained competitive advantage has been confined to manufacturing industries. While innovation is recognised as important for national competitiveness and economic growth, services tend to be viewed as innovation laggards that make little or no contribution to either productivity or growth (Windrum and Tomlinson 1999). However, the move by organisations to a major dependence on services, plus an increasing intensity of competition and changes in technology, would point to the importance of innovation as a key ingredient for competitive advantage for service firms (Martin and Horne 1993). Indeed, a growing number of researchers suggest

that service innovations enable firms to gain competitive advantage (Coyne 1993; Easingwood and Mahajan 1989; Kaplan 2000; Morris and Westbrook 1996).

Several issues remain to be addressed in formulating a conceptual model in NSD-based competitive strategy for services. First, researchers have often used the words 'new service development' and 'new product development' interchangeably, highlighting the need for a working definition of NSD (Johne and Storey 1996). Second, the bulk of published literature has been concerned with the development of new financial services and it is only in recent years that researchers have begun to address issues concerned with the wide span of services offered today (Johne and Storey 1996). Third, services differ from products in terms of a number of key characteristics. Some aspects commonly recalled in the literature (Miles 1993) are: (a) a close interaction between production and consumption (co-terminality), (b) a high information-intangible content of services products and processes, (c) an important role played by human resources as a key competitive factor and (d) a critical role played by organisational factors for the firm's performance. Several researchers have stressed that the interaction with the customer in the service development process is an important factor that distinguishes NSD from new product development. As observed by (Johne and Storey 1996, p.186),

*"While tangible products may be offered with or without customer service elements, such support is always required in marketing service products. Nearly all service products involve close interaction with customers. Interaction is the distinguishing feature of service offerings. Because, the interaction process is typically an integral part of service, the development of a new service is usually far more complex, conceptually, than the development of a new tangible product".*

Extending this view Edvardsson and Olsson (1996) argue that the customer is a 'co-producer' of services. In the case of manufactured products, the customer is not present at the manufacturing process nor does he/she participate in that process. However, in the case of services the customer's presence as a co-producer influences the outcome in terms of added value and quality and thus the NSD process differs from new product development process. Furthermore the new product development literature suggests that customers are an important source of idea generation. However in the case of services, customers form an integral part of the NSD process. Notwithstanding these contributions, the majority of the

literature on NSD based competitive strategy is prescriptive and lacks a strong empirical base. This reflects the need for a theoretical framework that can be adopted to examine the NSD based competitive strategy.

## *2.2 Theory of Sustained Competitive Advantage (SCA)*

Simply stated, competitive advantage is the ability of a business to derive abnormal profits or rent in a competitive industry (Aharoni 1993), based on a value-creating strategy not simultaneously implemented by any current or potential competitors. Competitive advantage grows out of the way the firm organises and performs discrete and connected activities of the value-chain. This competitive advantage is sustainable when the advantage resists erosion by competitors' actions (Porter 1985) and when competitors are unable to duplicate the benefits of the strategy (Barney 1991).

The capability-based theory of SCA that has gained prominence over the last decade, suggests that a firm can achieve competitive advantage through the distinctive or core-capabilities possessed by the firm (Grant 1991; Hayes et al. 1996; Prahalad and Hamel 1990). This capability-based theory effectively explains the value creation process by assigning a proactive and dominant role to the strategic leadership of the firm. Distinctive capabilities that enable firms to gain competitive advantage are developed consciously and systematically by the wilful choices and actions of the firm's strategic leaders (Child 1972; Grant 1991; Hayes et al. 1996; Lado et al. 1992). In this paper, organisational distinctive capabilities are defined as a service firm's capacity to perform a range of organisational routines (sequence of coordinated actions) for the purpose of delivering services to the market in a manner that outperforms competitors.

The inability of competitors to duplicate distinctive capabilities is the key source of sustainability under the capability theory of competitive advantage (Grant 1991; Hayes et al. 1996). The sustainability of competitive advantage relies on the 'capability differential' on which competitive strategy is founded (Coyne 1986; Hall 1993) although the sustainability of competitive advantage in the provision of services is widely felt to be more difficult to sustain due to the ease with which services can be commonly replaced or copied.

Given that the strategist plays a vital role in building and nurturing organisational capabilities, the capability-based theory provides a meaningful framework to examine the antecedents of NSD based competitive strategy. Clearly, innovations cannot occur in the absence of an

entrepreneurial owner/manager who engages in building and nurturing innovative capabilities and integrating new knowledge into service delivery activities.

**2.3 Learning Processes and NSD**

The antecedents of NSD are determined by the manner in which the NSD process is conceptualised. Premised on organisational learning approaches to innovation (Brown 1992; Day 1994; Tushman and Nadler 1980), this paper conceptualises NSD as a learning process in which the new knowledge acquired is integrated into the service delivery activities of the firm. The firm’s learning capabilities play a crucial role in generating innovations (Sinkula, Baker, and Noordewier 1997). Indeed, recent service innovation literature advocates the use of organisational learning-based approaches to determine and examine the antecedents of NSD (Sundbo 1997).

Organisational learning theory suggests that there are two learning levels that lead to organisational change: adaptive learning and generative learning. In contrast to adaptive learning, generative learning occurs when the firm is willing to question long-held assumptions about its mission, customers, competitors, and strategy (Argyris 1977; Senge 1990). Importantly, generative learning is a potential source of SCA (Sinkula 1994; Slater and Narver, 1995). Generative learning involves

changing the firm’s knowledge base, firm-specific capabilities and routines, and is analogous to the firm’s intellectual skills.

The degree of innovation reflects the extent of new knowledge embedded in an innovation (Dewar and Dutton 1986; Ettlie 1983). Adaptive learning is associated with incremental innovations, whereas generative learning is associated with radical innovations (McKee 1992). The firm should fulfil several requirements in order to scale the summit of generative learning, which include learning from both external and internal sources (March 1991), the presence of entrepreneurship, (Leonard-Barton 1992; Slater and Narver 1995) and unlearning (Schein 1990).

**3. A Capability-based Model of NSD-based Competitive Strategy: Research Propositions**

The capability-based model of NSD and service firm competitive advantage is illustrated in Figure 1. The model suggests that entrepreneurial service firms pursuing NSD-based competitive strategy build and nurture distinctive learning capabilities. We distinguish between three key learning capabilities, including market-focused learning, internally-focused learning and relational learning. These learning capabilities capture the domain of the service firm’s knowledge base.

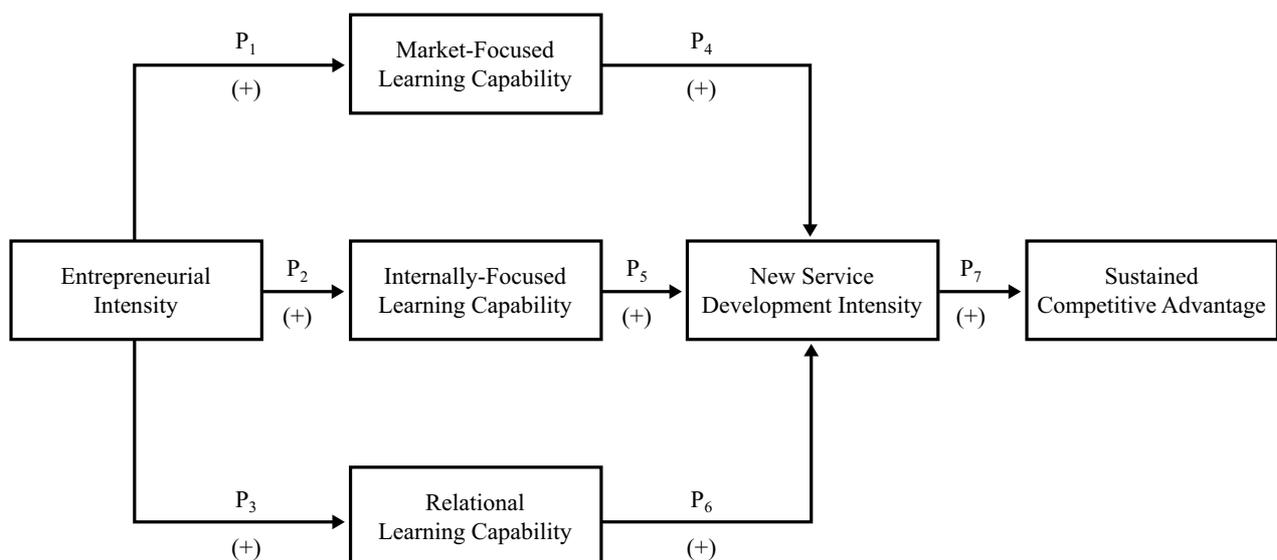


Figure 1: A Conceptual Model of New Service Development and Sustained Competitive Advantage

Specifically, the market-focused and relational learning capabilities capture the service firm's capacity to learn from external sources, while the internally-focused learning capability reflects the firm's ability to learn from internal sources. The model therefore suggests that firms pursuing a NSD-based competitive strategy learn from both internal and external sources. The presence of entrepreneurship, learning from both external and internal sources and unlearning, fulfils the requirements for achieving generative learning within the firm (Slater and Narver 1995; Schein 1990). The NSD is conceptualised as a continuum, which reflects the NSD intensity of the firm. In summary, the model suggests that entrepreneurial service firms pursuing competitive advantage through innovations will build and nurture distinctive learning capabilities that will enable them to achieve higher levels of NSD intensity and, in turn, SCA.

### *3.1 Entrepreneurial Intensity and Distinctive Capabilities*

Much of the strategy literature suggests a positive association between 'entrepreneurship' and the growth-oriented efforts of the firm (Mintzberg 1973; Miller 1983). An entrepreneur is an owner/manager who possesses innovative abilities and makes strategic decisions for his/her firm (Collins and Moore 1970; Miller 1983). A firm's entrepreneurial orientation is a crucial factor in determining its competitive orientation (Merz and Sauber 1995). Entrepreneurial organisations often initiate actions to which competitors then respond. Such entrepreneurial organizations are thus frequently marketing new product offerings (Khandwalla 1977). Based on the recent behavioural approach (Covin and Slevin 1986) we define entrepreneurial intensity as a behavioural pattern in which the firm displays three characteristics in their strategic decisions, namely, innovativeness, proactiveness and risk-taking propensity. Further, we argue that entrepreneurial intensity can be conceptualised in terms of a continuum.

Rizzoni (1991) establishes a link between entrepreneurship, organisational capabilities and innovation. He suggests a firm pursuing an innovation-based strategy accumulates specific capabilities, which distinguish the firm from its competitors and enable it to face the variability of the environment. Premised on capability-based theory, the model illustrated in Figure 1 argues that a link exists between service firm entrepreneurial intensity, organisational capabilities and NSD intensity. In our view, the survival and growth of the service firm is based on the firm's ability to develop a position of superiority

in the development of organisational capabilities. The proposed relationships between service firm entrepreneurship and distinctive organisational learning capabilities are discussed in the following sections.

### *3.2 Market-focused Learning Capability*

Innovations arise as the result of a perceived and sometimes clearly articulated new opportunities to satisfy customers (Levitt 1960). It is suggested, based on the literature, that service firms pursuing NSD-based competitive strategy learn from two principal market-based sources, namely, customers and competitors.

Long-term relationships with customers are thought to be necessary for the development of new services that ultimately provide customer value (Bund Jackson 1985; Gronroos 1984; Maidique & Zirger 1984). NSD success is more likely if there is extensive involvement of customers in the development process, especially in idea generation (Martin and Horne 1995). Due to the close interface between production and consumption of services, a large part of innovation activities in the service sectors is oriented to the adaptation-customisation of the services (de Brentani 1991; Sirilli and Evangelista 1998). Recent research suggests that service firms significantly involve customers throughout the innovation process. A high degree of customer orientation was found to be associated with the market success of new industrial service development (de Brentani 1995). Indeed, Maidique and Zirger (1984) reported that continual, informal and in-depth contact with key customers throughout the development process was a factor in successful innovations.

Competitive imitation is another widely pursued path for idea generation. Researchers observed that due to the ease of copying competitors have been identified as a more important source of ideas for NSD than customers (for instance, Easingwood 1986; Hooley and Mann 1988). However, recently it has been found that competitive imitation is less likely among successful service firms (Martin and Horne 1993). The preceding discussion suggests that service innovators generate ideas from both customers and competitors. Accordingly, we argue that entrepreneurial firms pursuing NSD as a major thrust in their competitive strategy build and nurture distinctive market-focused learning capabilities. We propose the following relationship between entrepreneurial intensity and market-focused learning capabilities.

*P1: Service firms exhibiting a higher degree of entrepreneurial intensity possess more distinctive market-focused*

*learning capabilities than those exhibiting a lesser degree of entrepreneurial intensity.*

### 3.3 Internally-focused Learning Capability

Organisations learn either by experience and/or strategic choice (Child 1972). This paper conceptualises the internally-focused learning capability as a service firm's capacity to learn through strategic choice, which primarily includes experimental learning (i.e. finding new ways of doing things). A commonly pursued experimental learning activity in manufacturing firms is in-house R&D activity. The literature suggests that R&D plays a key role in service innovations in engineering service industries (Sirilli and Evangelista 1998). The increased recognition of NSD as a source of competitive advantage in service firms has resulted in R&D activity gaining prominence in the banking, finance, entertainment, and travel fields (Barcet et al. 1987). However, the term R&D does not capture all internally focused learning activities aimed at NSD (Sundbo 1997). Therefore, we conceptualise the internally focused learning capability as incorporating all the internal technical and non-technical activities undertaken by a firm to enhance its knowledge base. This includes all human resource training activities undertaken by a firm to develop service delivery skills. Based on the foregoing discussion we argue that entrepreneurial firms pursuing NSD-based competitive strategy build and nurture distinctive internally focused learning capabilities. Accordingly, the following proposition is advanced.

*P2: Service firms exhibiting a higher degree of entrepreneurial intensity possess more distinctive internally focused learning capabilities than those exhibiting a lesser degree of entrepreneurial intensity.*

### 3.4 Relational Learning Capability

Exploiting external knowledge is a critical component of innovative activities (Cohen and Levinthal 1990). Though in-house R&D and other forms of internally-focused learning may be necessary, firms must access and modify external resources in order to develop the capabilities to respond to changing market conditions effectively. Collaborative linkages or "networking" improve the innovation potential of the organisation (Contractor and Lorange 1988). Suppliers of equipment, material and components are very important sources of knowledge acquisition for service firms (Sirilli and Evangelista 1998). However, research to date examining the role of networking and external linkages in NSD has been limited. This paper distinguishes the relational

learning capability from the market-focused learning capability. The market-focused learning capability reflects a firm's capacity to learn from customers and competitors, whereas relational learning reflects a service firm's capacity to learn through links and networks formed with external institutions and firms. Based on this discussion, we argue that entrepreneurial firms pursuing NSD-based competitive strategy possess distinctive relational learning capabilities. Accordingly, the following proposition is advanced.

*P3: Service firms exhibiting a higher degree of entrepreneurial intensity possess more distinctive relational learning capabilities than those exhibiting a lesser degree of entrepreneurial intensity.*

### 3.5 Distinctive Learning Capabilities and New Service Development Intensity

The literature review suggests the need for a clearer conceptualisation of the NSD construct. Innovation has been conceptualised in the manufacturing innovation literature in terms of two notions: the 'newness' (Damanpour 1991; Tushman and Nadler 1986) and 'total value created' by the innovation (McKinsey & Co. 1993). The notion of newness refers to what is perceived as new by the relevant unit of adoption (Dewar and Dutton, 1986) and the degree of newness reflects the new knowledge embedded in innovations. Based on this discussion NSD, at the level of an individual firm can be defined as the integration of new knowledge acquired by the firm to its service offerings, to create added value directly for the firm or indirectly for its customers. Lovelock (1984) identifies four types of service innovations that range from 'style changes' to 'major innovations'. Lovelock's typology reflects the 'incremental' to 'radical' innovation continuum discussed above and a growing number of service innovation researchers seem to adopt this continuum in the conceptualisation of the degree of NSD (Atuahene-Gima 1996; John and Storey 1998; Sundbo 1997).

Another aspect that requires attention in the conceptualisation of this construct is the type of service innovations pursued by the firm. John and Storey (1998) develop a NSD typology, namely improved core products, new product variants, product augmentation and new-to-world offers. The foregoing approach, which conceptualises the NSD construct in terms of the degree and type of NSD, paves the way for the formulation of a composite measure of services innovation, which reflects the new service development intensity of a service firm.

Accordingly, the NSD construct is conceptualised as a continuum that reflects a service firm's new service development intensity. Based on our earlier discussion on the role of learning capabilities in NSD, we advance the following propositions.

*P4: Service firms possessing high levels of distinctive market-focused learning capabilities achieve higher degrees of NSD intensity than those with low levels of market-focused learning capabilities.*

*P5: Service firms possessing high levels of distinctive internally focused learning capabilities achieve higher degrees of NSD intensity than those with low levels of internally focused learning capabilities.*

*P6: Service firms possessing high levels of distinctive relational learning capabilities achieve higher degrees of NSD intensity than those with low levels of relational learning capabilities.*

### *3.6 New Service Development Intensity and SCA*

Competitive advantage can be conceptualised as a superior 'marketplace position' that captures the provision of superior customer value and/or the achievement of lower relative costs, resulting in market share dominance and superior financial performance (Day and Wensley 1988). Much of the existing research uses superior financial performance as an indicator of competitive advantage (Aharoni 1993; Jacobson 1988; Porter 1985). Sustained competitive advantage is believed to be simply a competitive advantage that lasts a long period of calendar time (Jacobson 1988; Porter 1985). These views, however, have attracted criticism in the literature (Barney 1991; Day and Wensley, 1988) and there is a need to conceptualise the construct incorporating well-founded and realistic indicators of SCA. This paper concurs with Day and Wensley (1988) who do not completely discard financial indicators of SCA but suggest that they are but one element of more comprehensive indicators of market advantage such as customer satisfaction and market share.

SCA exists when current and potential competitors are unable to reproduce the value creation strategy adopted by the firm (Barney 1991). The concept of 'competitive duplication' has been used as a key criterion of sustainability in all models of SCA. Specifically, the inimitability of distinctive capabilities or the 'capability differential' is a key source of sustainability under the capability-based model (Grant 1991; Hall, 1993; Hayes et al. 1996). Recent attempts to model the antecedents of

sustained competitive advantage in service firms incorporate the concept of inimitability as a key source of sustainability of advantage (Bharadwaj, Varadarajan and Fahy 1993).

The literature on NSD based competitive strategy has grown in volume over the last few years. But the majority of the literature is prescriptive (Coyne 1993; Kaplan 2000; Kellerman 1994) and fragmented. In a study of factors affecting innovation performance in Australian manufacturing and service firms, Atuahene-Gima (1996) found that new services that provide superior benefits, are innovative and replace inferior alternatives, are more likely to achieve a higher market share, sales growth and profit objectives. A general belief exists that service advantage is very difficult to achieve and sustain due to the ease of copying and lack of strong patent regimes and other imitation barriers (Atuahene-Gima 1996). However, a growing number of researchers are providing evidence, which suggests that NSD does lead to sustained competitive advantage (Morris and Westbrook 1990; Thomas and Kelvin 1999; de Brentani 1995). Based on this discussion, the following proposition is advanced.

*P7: There is a positive relationship between new service development intensity and SCA.*

## **4. Operationalising the Model: Issues**

As in any relatively new area of theory building, there are a number of obstacles to surmount in translating theory to measurement and testing. The proposed model is premised on the capability-based theory of SCA and draws heavily from the organisational learning approaches to innovation. The literature in both these areas has grown in volume over the last decade. The capability-based theory, in particular, has reached the stage where measurement of the theoretical constructs is required. Key theoretical propositions also need to be tested in order to progress the competitive strategy theory. Interestingly, the capability-based theory has not been fully explored in the service firm competitive advantage literature. This paper advocates the theory-testing path to examine the theoretical relationships proposed in the model. This will facilitate the development of a consistent body of knowledge of NSD-based competitive strategy.

To test the theoretical model proposed in this paper the authors advocate the use of quantitative methods, including structural equation modelling (SEM) techniques. Testing such a model would involve the development of measures for each theoretical construct and testing the

relationships in the theoretical model. Given the nature of the constructs in the model and the multiple interdependent relationships that have been specified, SEM appears to be an appropriate method for developing measures for theoretical constructs and estimating the theoretical relationships proposed in the model (Anderson and Gerbing 1988).

It is recommended that the entrepreneurial intensity construct be operationalised using the recent behavioural approach to entrepreneurship. This approach focuses on the behaviour of the service firm, rather than the behaviour of key decision-makers. Entrepreneurial firms display three characteristics in their managerial decisions, namely proactiveness, innovativeness and risk-taking (Covin and Slevin 1986). These characteristics form the basis of the entrepreneurship scale developed by Covin and Slevin (1986) who argue that behavioural manifestations of entrepreneurship can be reliably, verifiably and objectively measured, enabling researchers to differentiate between firms with different levels of entrepreneurial intensity.

It is suggested that the learning capability constructs be operationalised using key learning processes suggested in the literature, namely information acquisition, information dissemination, unlearning and integration of learning into organisational change (Huber 1991; Sinkula 1994). In the generation of indicators for the learning capability constructs, the fourteen-item measure for market-focused learning suggested by Day (1994) provides valuable guidance. As an additional measure of the distinctiveness of each capability construct, we propose that respondents be asked to indicate the extent to which a particular capability has been instrumental in outperforming competitors (Snow and Hrebiniak 1980).

With regard to operationalising the NSD construct, our earlier discussion suggests that a composite measure can be developed incorporating the degree and type of NSD. It is the authors' view that a composite measure incorporating both the degree and type of NSD activity will not only capture the service firm's innovation intensity, but also provide researchers with a comprehensive and realistic measure of service firm innovation.

Our earlier discussion on the sustained competitive advantage construct highlighted the need to strengthen financial indicators of performances with the indicators of market advantage. Similarly, indicators of sustainability should include competitors' inability to duplicate service innovations and capability differential on which

competitive advantages have been found. Accordingly, we suggest that the SCA construct be operationalised in terms of three elements: (1) the extent to which NSD has enabled the service firm to gain market advantages, (2) whether it is possible for competitors to duplicate NSDs and (3) whether it is possible for competitors to duplicate distinctive capabilities on which competitive advantages have been founded.

Appropriate key informants for future empirical studies in this area include CEOs of service firms. The CEO is typically familiar with all aspects of a service firm's operations, influences the strategic direction of the firm and plays a key role in technology adoption decisions (Hambrick 1981).

## 5. Conclusions

The proposed capability-based model of NSD and service firm competitive advantage incorporates key theoretical propositions from the competitive strategy literature. First, the model suggests that a firm can achieve SCA through the distinctive capabilities in its possession. Second, distinctive capabilities do not merely accrue to the firm but are consciously and systematically developed and nurtured by the firm's strategic leaders. Third, the model suggests that competitive advantage can be gained by creating superior value for customers and can be achieved by performing service delivery related activities in an innovative manner. Fourth, firms reaching higher levels of NSD intensity are likely to gain SCA. Furthermore, the manner in which the key theoretical constructs are conceptualised suggests their interrelationships have important implications for service firm competitive strategy theory and practice.

The framework presented in this paper conceptualises strategic leadership in terms of the entrepreneurial intensity of the firm. The proposed relationship between entrepreneurial intensity and service firm capability building activity has not received adequate attention in either the services marketing or entrepreneurship literature. Specifically the model presents service firm managers with a feasible path for building SCA. Service firms striving to gain competitive advantage should pursue an NSD-based competitive strategy. NSD is conceptualised as a learning process and service firms pursuing an innovation-based competitive strategy must develop and nurture distinctive learning capabilities. The model also suggests that service firms seeking higher degrees of innovation must fulfil the prerequisites for higher-order learning, which include an entrepreneurial

posture in decision-making, learning from both external and internal sources and active unlearning.

The three learning capabilities and their theoretical relationship with NSD intensity, have important implications for future research. Although organisational learning is addressed within the growing body of literature, the relationship between different levels of learning and their association with strategy variables has not been fully explored, particularly within a services context. The relationships in the theoretical model and the proposed approach to conceptualising the organisational learning capabilities should guide empirical research and contribute to our understanding of service firm organisational learning.

With regard to SCA, capability-based theory suggests that the inimitability of distinctive capabilities is a key source of sustainability (Grant 1991; Hayes et al. 1996). An obvious implication of this proposition is that service firm managers pursuing competitive strategy must invest in building and nurturing distinctive capabilities that will enable them to gain SCA. The tacitness, complexity and specificity of firms' capabilities can produce causal ambiguity regarding the firm's actions, which, in turn, create barriers to imitation.

In summary, the proposed capability-based model of NSD and SCA specifies the fewest necessary constructs, which exert the greatest relative impact on NSD and SCA. Therefore, the model is sufficiently bounded and conforms to the guidelines suggested in the literature for formulating conceptual models within social and business sciences (Keats and Bracker 1988). By presenting theoretical propositions we facilitate the formulation of propositions that researchers might wish to explore. The model provides a novel formulation of the relationship between entrepreneurship and service firm competitive advantage. The model also adopts realistic approaches to operationalising the two constructs, which reflects recent developments in the literature and addresses the need for well-founded measures of the key constructs. The model captures the critical role of strategic decision-makers in the development and selection of firm strategies. Drawing attention to NSD and the role of strategists in this process is particularly important in light of the rapidly changing environment of today's service firms.

## References

- Aharoni, Yair., 1993. In Search for the Unique: Can Firm-Specific Advantages be Evaluated? *Journal of Management Studies*, 30 (1), 31-49.
- Anderson, James, C., Gerbing, David, W., 1988. Structural equation modelling in practice: A review and recommended two-step approach, *Psychological Bulletin*, 103 (3), 411-423.
- Argyris, C., 1977. Double Loop Learning in Organizations, *Harvard Business Review*, 55 (September/October), 115-25.
- Atuahene-Gima, K., 1996. Differential Potency of Factors Affecting Innovation Performance in Manufacturing and Services Firms in Australia, *Journal of Product and Innovation Management*, 13, 35-52.
- Barcet, A., Bonamy, J., Mayere, A., 1987. Modernisation et innovation dans les services aux entreprises, *Commissariat General du Plan*.
- Barney, J.B., 1991. Firm Resources and Sustained Competitive Advantage, *Journal of Management*, 17 (1), 99-120.
- Bharadwaj, S.G., Varadarajan, P.R., and Fahy, J. 1993. Sustainable Competitive Advantage in Service Industries: A Conceptual Model and Research Propositions, *Journal of Marketing*, Vol, 57, October, pp. 83-99,
- Brown, R., 1992. Managing the "S" curve of innovation, *The Journal of Consumer Marketing*, 9 (1), Winter.
- Bund Jackson. B., 1985. Build Customer Relationships that Last, *Harvard Business Review*, (November-December), 120-128.
- Child, J., 1972. Organizational Structure, Environment, and Performance: The Role of Strategic Choice, *Sociology*, 6, 1-22.
- Cohen, M., Levinthal, D. A., 1990. Absorptive Capacity: A New Perspective on Learning and Innovation, *Administrative Science Quarterly*, 35, 128-152.
- Collins, O., Moore, D.G., 1970. *The Organization Makers*. New York: Appleton-Century-Crofts.
- Contractor, F., Lorange, P., 1988. *Cooperative Strategies in International Business*. Cambridge, MA: Lexington Books.
- Covin, J.G., Slevin, D.P., 1986. The development and testing of an Organisational-level entrepreneurship scale, *Frontiers of Entrepreneurship*, Babson College, Mass.
- Coyne, K.P., 1993. Achieving a Sustainable Service Advantage, *Journal of Business Strategy*, 14 (1), 3-10.
- Coyne, K.P., 1986. Sustainable Competitive Advantage:

- What It Is, What It Isn't, *Business Horizons*, 29, 54 - 61.
- Damanpour, F., 1991. Organizational Innovation: A Meta-Analysis of Effects of Determinants and Moderators, *Academy of Management Journal*, 34 (3), 555-590.
- Day, G. S., 1994. Continuous Learning About Markets, *California Management Review*, 36 (Summer), 9-31.
- Day, G. S., Wensley, R., 1988. Assessing Advantage: A Framework for Diagnosing Competitive Superiority, *Journal of Marketing*, 52 (April), 1-20.
- Dewar, R. D., Dutton, J. E., 1986. The Adoption of Radical and Incremental Innovations: An Empirical Analysis, *Management Science*, 32, 1422-1433.
- de Brentani, U., 1989. Success and Failure in New Industrial Services, *Journal of Product Innovation Management*, 6 (6), 239-58.
- de Brentani, U., 1991. Success Factors in Developing New Business Services, *European Journal of Marketing*, 25(2): 33-59.
- de Brentani, U., 1995. New Industrial Service Development: Scenarios for Success and Failure, *Journal of Business Research*, 32: 93-103.
- Easingwood, C. J., 1986. New Product Development for Service Companies, *Journal of Product Innovation Management*, 3 (4), 264-75.
- Easingwood, C. J., and Mahajan, V., 1989. Positioning of Financial Services for Competitive Advantage, *Journal of Product Innovation Management*, 6 (3), 207-219.
- Edvardsson, B., Olsson, J., 1996. 'Key Concepts for New Service Development, *Service Industries Journal*, 16(1), 140-164.
- Ettlie, J. E., 1983. Organisational policy and innovation among suppliers to the food processing sector, *Academy of Management Journal*, 26 (1), 27-44.
- Grant, R. M., 1991. Analysing Resources and Capabilities, in *Contemporary Strategic Analysis: Concepts, Techniques and Application*, Robert M. Grant, ed. Cambridge, MA: Basil Blackwell, 93-122.
- Gronroos, C., 1984. A Service Quality Model and Its Marketing Implications, *European Journal of Marketing*, 18 (4), 36-44.
- Hall, R., 1993. A Framework for Linking Intangible Resources and Capabilities to Sustainable Competitive Advantage, *Strategic Management Journal*, 14, 607-618.
- Hambrick, D. C., 1981. Strategic awareness within top management teams, *Strategic Management Journal*, 2, 263-279.
- Hayes, R. H., Pisano, G. P., Upton, D. M., 1996. *Strategic Operations: Competing Through Capabilities*. New York: Free Press.
- Hooley, G., Mann, S., 1988. The Adoption of Marketing by Financial Institutions, *Service Industry Journal*, 5 (3), 261-72.
- Huber, G. P., 1991. Organisational learning: the contributing processes and literature, *Organisation Science*, 2, 88-115.
- Jacobson, R., 1988. The Persistence of Abnormal Returns, *Strategic Management Journal*, 9, 41-58.
- Johne, A., Storey, C. 1998. New Service Development: A Review of Literature and Annotated Bibliography, *European Journal of Marketing*, 32 (3), 184-251.
- Kaplan, S.M., 2000. Innovating Professional Services, *Consulting to Management*, 11 (1), 30-34.
- Kellerman, L., 1994. Achieving Competitive Advantage in the Electric Power Marketplace, *Electricity Journal*, 7 (6), 16-20.
- Khandwalla, P. N., 1977. *The design of organisations*. New York: Harcourt Brace Jovanovich.
- Leavitt, T., 1960. Marketing Myopia, *Harvard Business Review*, (July-August), 45-56.
- Leonard-Barton, D., 1992. Core Capabilities and Core Rigidities: A Paradox in Managing New Product Development, *Strategic Management Journal*, 13, 111-125.
- Lovelock, C., 1984. Developing and Implementing New Services, in George, W.R. and C.E. Marshall, eds. *Developing New Services*. Chicago, IL: American Marketing Association. 44-64.
- Maidique, M.A., Zirger, B.J., 1984. A Study of Success and Failure in Product Innovation: The Case of the US Electronics Industry, *IEE Transactions in Engineering Management*, 31(November), 192-203.
- March, J. G., 1991. Exploration and Exploitation in Organizational Learning, *Organization Science*, 2 (1), 71-87.
- Martin, C. R., Horne, D.A., 1993. Services Innovation: Successful Versus Unsuccessful Firms, *International Journal of Service Industry Management*, 4 (1), 49-65.

- Martin, C.R., Horne, D.A., 1995. Level of Success Inputs for Service Innovations in the Same Firm, *International Service Industry management*, 6 (4): 40-56.
- McKee, D., 1992. An Organizational Learning Approach to Product Innovation, *Journal of Product Innovation Management*, 9, 232-45.
- McKinsey & Co 1993. *Unlocking Innovation: Challenging conventional wisdom about what leaders do*. Sydney: McKinsey & Co.
- Merz, R.G., Matthew, H.S., 1995. Profiles of Managerial Activities in Small Firms, *Strategic Management Journal*, 16, 551-564.
- Miles, I., 1993. Services in the New Industrial Economy, *Futures*, 25 (6), 653-672.
- Miller, D., 1983. The correlates of entrepreneurship in three types of firms, *Management Science*, Vol. 29, pp.770-791
- Mintzberg, H., 1973. Strategy Making in Three Modes, *California Management Review*, 16 (2), pp. 44-53.
- Morris, T., Westbrook, R., 1996. Technical Innovation and Competitive Advantage in Retail Financial Services: A case Study of Change and Industry Response, *British Journal of Management*, 7 (1), 45-61.
- Naman, J.L., Slevin, D.P., 1993. Entrepreneurship and the Concept of Fit: A Model and Empirical Tests, *Strategic Management Journal*, 14 (2), 137-53.
- Porter, M.E., 1985. *Competitive Advantage: Creating and Sustaining Superior Performance*. New York: Free Press.
- Prahalad, C.K. Hammel, G., 1990. The Core Competence of The Corporation, *Harvard Business Review*, 68 (3), 79-91.
- Rizzoni, A., 1991. Technological innovation and small firm: A Taxonomy, *International Small Business Journal*, 9 (3), 31-42.
- Schein, E. H., 1990. Organisational culture, *American Psychologist*, 45 (February), 109-119.
- Senge, P.M., 1990, *The Fifth Discipline*. New York: Doubleday.
- Sinkula, J. M., 1994. Market Information Processing and Organizational Learning, *Journal of Marketing*, 58 (January), 35-45.
- Sinkula, J.M., Baker., W.E., Noordewier, T., 1997. A Framework for Market-Based Organizational Learning: Linking Values, Knowledge, and Behaviour, *Journal of the Academy of Marketing Science*, 25 (4), 305-318.
- Sirilli, G., Evangelista, R., 1998. Technological Innovation in Services and Manufacturing: Results from Italian Surveys, *Research Policy*, 27, 881-899.
- Slater, S.F., Narver, J.C., 1995. Market Orientation and the Learning Organization, *Journal of Marketing*, 59 (July), 63-74.
- Snow, C.C., Hrebnick, L.G., 1980. Strategy, distinctive competence and Organisational performance, *Administrative Science Quarterly*, 25 (2), 317-336.
- Sundbo, J., 1997. Management of Innovation in Services, *Service Industries Journal*, 17 (3), 432-455.
- Thomas, P., Kelvin, A., 1999. Market-led Culture and Competitive Advantage: A Case of Siemens BCS UK Telecommunications, *Journal of Professional Services Marketing*, 20 (1), 147-163.
- Tushman, M., Nadler, D., 1986. Organizing for Innovation, *California Management Review*, 28 (2), 74-92.
- Windrum, P., Tomlinson, M., 1999. Knowledge Intensive Services and International Competitiveness: A Four-Country Comparison, *Technology Analysis and Strategic Management*, 11 (September), 391-408.

### **Biographies**

**Jay Weerawardena** is a Lecturer in Marketing in the UQ Business School, University of Queensland. He has a Bachelor of Economics, an MBA and a PhD focusing on organisational innovation-based competitive strategy. He has presented papers at reputed conferences in marketing and management including conferences conducted by the American Marketing Association and the Academy of Management. His current research interests include entrepreneurial marketing, new service development and innovation-based competitive strategy in 'born global' firms. Before becoming an academic Jay worked as Marketing Director in a British multinational engineering company in Sri Lanka.

**Janet R. McColl-Kennedy** is an Associate Professor in the UQ Business School, University of Queensland. She has a BA with First class Honours and a PhD from University of Queensland. Her research is focused on services, particularly involvement, search, service recovery, and most recently emotions. Janet has presented numerous papers at international conferences and has published in several international journals including *Journal of Business Research*, *Journal of Services*

Marketing, Advances in Consumer Research, and  
Journal of Professional Services Marketing.

**Correspondence Addresses**

Jay Weerawardena, UQ Business School, University of  
Queensland, St. Lucia, Qld 4072, Australia. Telephone: +61 (7)

3365-6674, Facsimile: (07) 3356-6988, e-mail: j.weerawarde-  
na@gsm.uq.edu.au; Janet R. McColl-Kennedy, UQ Business  
School, University of Queensland, St. Lucia, Qld 4072,  
Australia. Telephone: +61 (7) 3365 6673, Facsimile: +61 (7)  
3365 6988, e-mail: j.mccoll-kennedy@gsm.uq.edu.au

## Predicting Personal Loyalty to a Service Worker

Liliana L. Bove & Lester W. Johnson

---

### Abstract

The role of trust and commitment in the prediction of a customer's personal loyalty to an individual service worker was investigated. Personal loyalty was defined as a customer's level of attachment to and exclusive use of a service individual. It was measured by the customer's attitude or relative attitude towards the service worker (relative to other service workers he/she is aware of, or has experienced in the service delivery), and the customer's level of exclusive use of the service worker over a defined period of time.

The hairdressing context provided a research setting in which personal loyalty could exist. Multiple linear regression found that customer commitment to the hair stylist and the dimensions of trust (perceived credibility and benevolence of the hair stylist) were significant indicators of personal loyalty when attitude was used to derive the personal loyalty index. In contrast, when relative attitude was used to construct the personal loyalty index, only commitment and the credibility dimension of trust were significant indicators. The two personal loyalty indices were found to be significantly different from each other. Both personal loyalty indices were effective in predicting customer loss in the event that the hair stylist was to move to another nearby salon

*Keywords: service worker, loyalty, trust, commitment, intentions to defect*

---

### 1. Introduction

Personal loyalty exists when the customer's attitude towards a service worker is high relative to other service workers at the firm, and the customer's level of use of this worker for service delivery is very high, if not exclusive. It is therefore likely to develop when the customer perceives the service worker as unique (differentiated) compared to other service workers in the same field. Not only does high personal loyalty limit the operational flexibility of the service firm, as the customer chooses to wait or forgo the service until their service worker is available, but the customer's patronage of the firm is subject to the service worker continuing to serve the customer. There are many examples where an individual service worker transfers to another service outlet or territory, or in fact leaves the organisation only to be followed by a valuable customer/s. Salespeople, personal service employees such as beauticians and hairdressers and professional service employees such as general practitioners, accountants and solicitors are well

known for taking favoured clients with them when they leave to work for competitive businesses (Chow and Holden, 1997; Langton, 1997; Payne et al., 1994).

The determination of the level of personal loyalty therefore is critical to service managers as it provides them with a measure of how sensitive their loyal customer base is to their existing service personnel. Even in cases where the customer is unable to follow the service worker and therefore stays with the firm, the firm will lose the customer's "true" loyalty, (defined in terms of a favourable attitude towards the service that is high compared to potential alternatives and accompanied by high repeat patronage), at least for the interim, as the customer's continued repeat purchase will not be accompanied by a high positive attitude. In fact there are those who suggest that in high personal loyalty situations the firm does not gain the customer's true loyalty but only his/her behavioural loyalty (see Grandey, Dobni and Dobni, 1998). Either way, under the event that the service worker can no longer deliver the service to the

customer, this presents a potential danger to the service firm as the customer becomes receptive to competitor efforts.

The primary objective of this paper is to explore two key predictors of the personal loyalty construct. The operationalisation of the personal loyalty construct is first discussed and then two indices are derived. The two dimensions of trust (credibility and benevolence) and commitment are put forward as indicators of personal loyalty and their effectiveness is examined using both personal loyalty indices. Finally the two loyalty indices are tested for their ability to predict customer intentions to defect from the service firm and follow a service employee.

*2. Antecedents and Outcomes of Personal Loyalty*

A measure of a customer’s personal loyalty is important to managers of firms where the service worker provides the core service to the customer as in the case of personal and professional services, or is a major conduit to receiving the service as in the case of sales personnel. Further, the market must be such that there are available service alternatives and switching costs for the customer are low. Marketing managers have long been interested in more accurately predicting the level of customer personal loyalty in an attempt to provide a better basis for employee management decisions. An accurate assessment of the level of personal loyalty of high value customers provides managers with a feel for how dependent customer retention is on employee stability within the firm. To this end, this research attempts to predict personal loyalty based on customer assessments of their trust and commitment to a service worker. Trust and commitment have been put forth by a number of

researchers as key constructs to measure in the context of relationships and loyalty (Czepiel and Gilmore, 1987; Macintosh and Lockshin, 1997; Garbarino and Johnson, 1999). For example, Costabile (2000) found that increasing customer trust and commitment to a service worker lead to serial repurchase from the same service supplier. Further, Chow and Holden (1997) found that the trust held by a buyer toward a seller is an important antecedent of loyalty, whereas Pritchard et al. (1999) found commitment to be a significant indicator of customer loyalty. The conceptual model tested in this study is depicted in Figure 1.

*3. Research Setting*

Hairdressing services provided in a salon was chosen as the context for the research because customer monetary switching costs are low, there are typically many hairdressing salons from which to choose in a given area and usually only one particular service worker, the hair stylist, is responsible for the delivery of the entire service to the customer, providing the opportunity for personal loyalty to develop.

**4. Key Constructs**

*4.1 Personal Loyalty to Hairdresser*

In a service context the object of customer loyalty may be either the service firm, or a particular service worker (or both). The former may be referred to as service loyalty (Gremler and Brown, 1997), the latter as personal loyalty. As expected the two loyalty constructs are identical in their operationalisation and differ only in object. Although there is still argument between researchers as to how to operationalise loyalty, most agree that it is not appropriate to gauge customer loyalty by a customer’s

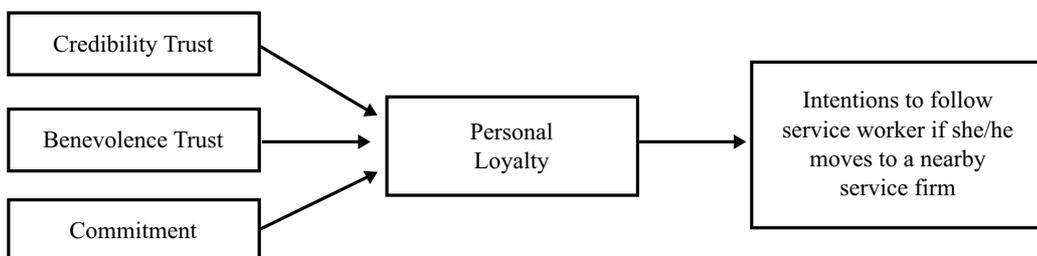


Figure 1: Antecedents and Outcome of Personal Loyalty

Table 1:  
Behavioural Loyalty Measure

Variable	Items
Repeat Patronage	Please estimate how many times you have:  (1) been served by this hairdresser in the last 6 months?*
	(2) gone to a hairdressing salon in the last 6 months?

\*The instructions on the cover of the questionnaire indicated that this hairdresser referred to the individual who actually did the respondent's hair and not merely someone who sold them hair care products.

behaviour alone, as there are other explanations for regular purchase behaviour that do not require a high relative attitude (i.e., high switching costs, lack of perceived alternatives, inertia, etc). Indeed the most important limitation of behavioural measures is that they make no distinction between "true" loyalty and repeat buying. It is important to distinguish between the two constructs because "true" loyalty is an extremely valuable asset to a firm. As the customer's search motivation for competitive alternatives is reduced, they exhibit an immunity to the pull of competition and provides favourable word-of-mouth and referrals towards the object of loyalty (Dick and Basu, 1994; Jain et al., 1987; Jarvis and Wilcox, 1977; Stum and Thiry, 1991). Loyal customers are also likely to purchase additional services with less marketing effort (Maister, 1995) and be more receptive to new service offerings (Gremler and Brown, 1997). Further, "true" loyalty is difficult to dislodge once attained, requiring considerable counter attitudinal influence (dissatisfaction) (Ennew and Binks, 1996) that makes the customer more tolerant of minor mistakes or inconsistencies if they should occur (Blackman, 1985; Hennig-Thurau and Klee, 1997). Finally loyal customers are more likely to engage in positive, voluntary behaviour that assists the business (Gremler and Brown, 1998; Gruen, 1995), such as altruism, courtesy, sportsmanship, civic virtue and conscientiousness (Gruen, 1995). These same consequences would not be expected where high repeat purchase behaviour is not accompanied by a high relative attitude (attachment) to the object.

A Personal Loyalty Index (PL1) was calculated using Day's (1969) original brand related work and Snyder's (1986) later adaptation to a service context. Specifically

PL1 was defined as  $PL_i = P(SPI)/A_i$  where  $PL_i$  = personal loyalty score of the  $i$ th consumer of service rendered by the service worker,  $P(SPI)$  = proportion of total service category purchases that consumers devoted to the service worker over the last six months in that service category and  $A_i$  = composite average attitude measure towards the service worker, scaled so that a low value represents a favourable attitude.

Day's loyalty measure describes what proportion of a customer's behaviour is based on, or attributed to a positive attitude, such that a high proportion of purchase when divided by strong attitude creates index scores that are close to 1 (true loyalty). This form of measurement provides a continuous or degree of loyalty measure. That is, there is not a distinction between loyal and non-loyal customers per se, rather individuals vary in terms of their degree of loyalty on a continuum. Share of category or proportion-of-purchase  $P(SPI)$  is a commonly used behavioural loyalty measure. It can be based either on the actual purchasing behaviour of consumers or self-reports of their behaviour. Self-reports were relied upon as it was not practical to access individual salon appointment books to determine the customer's actual usage of the given hairdresser within the specified time frame of six months. The two questions used to derive  $P(SPI)$  are given in Table 1.

The customer's attitude towards the hairdresser was measured by five items adapted from Mitchell and Olson's brand attitude scale (1981) as it was felt that the single item measure used originally by Day (1969) and later by Pritchard and Howard (1997) was inadequate. These items were reverse-ordered prior to the creation of a composite average score so that it was consistent with Snyder's adapted Loyalty Index.

Dick and Basu (1994) argue that a relative attitude measure, which is based on attitudinal strength and attitudinal differentiation, is superior to an attitude measure because it avoids the problem of poor discriminant validity between loyalty and attitude. There is also the argument that relative attitude scores would differ from merely attitude scores as it is not only the perceptions of the chosen hairdresser, but rather these perceptions in comparison to perceptions of non-chosen hairdressers that are important. For example, Mägi (1999) showed that there is not necessarily a strong relationship between store evaluations per se and relative store evaluations. Although a grocery store was considered to be a good store (high positive attitude) by consumers, they did not believe it to be a comparatively better store (low relative attitude). Mägi (1999) provides support for Dick and Basu's (1994) contention that relative attitudes are more appropriate for explaining choice behaviour as she showed that relative evaluations had a markedly higher effect on the degree of behavioural loyalty than evaluations per se. A search was made by the authors for appropriate relative attitude measures, but without success. Mägi's (1999) operationalisation of relative attitude could not be applied because unlike grocery shopping where most consumers frequent more than one store, in the case of hairdressing, consumers tend to confine their patronage to only one salon and even only one hairdresser within any given time period.

Bove and Johnson (2001) found that a large percentage of regular consumers typically had one hairdresser do their hair as they perceived it too risky to switch to an alternative hairdresser. Therefore respondents were simply asked to indicate the degree of preference/liking of the hairdresser compared to other hairdressers and their degree of perceived differentiation of the hairdresser as shown in Appendix 1. Similar to attitude, the items for relative attitude were reverse-ordered prior to their

aggregation to a composite average score. The Personal Loyalty Index derived from relative attitude will be referred to as Personal Loyalty Index 2 (PL2).

4.2 Trust of Hairdresser

The definition of trust used is one adapted from Zaltman and Moorman (1988) incorporating Ganesan's (1994) two dimensions of perceived credibility and benevolence. Here trust is an interpersonal state that reflects the extent to which a customer believes that the hairdresser is honest, can predict the hairdresser's behaviour, can depend on the hairdresser when it counts, and has faith that the hairdresser will continue to act in her best interests, despite an uncertain future.

Items used for the two dimensions of a customer's trust in a hair stylist, hair stylist credibility and benevolence were adapted from a number of sources (Ganesan, 1994; Garbarino and Johnson, 1999; McAllister, 1995; Rempel et al., 1985; Shemwell et al. 1994). Their reliability and validity had been previously evaluated in a large pre-test (n=186) using a convenience sample.

4.3 Commitment to Hairdresser

The definition of commitment used in this study is that given by Rylander, Strutton and Pelton (1997, p.60). Here commitment is "An enduring desire to develop and maintain exchange relationships characterised by implicit and explicit pledges and sacrifices for the long-term benefit of all partners involved." While commitment is the most common dependent variable assessed in buyer-seller relationship studies (Wilson, 1995), there has been little agreement as to how to measure it (Hocutt, 1998; Rylander et al., 1997). Commitment was initially operationalised as a two dimensional construct made up of a behavioural and an attitudinal dimension (Miettilä and Möller 1990; Rylander et al., 1997). As no previous research provided what we believed to be a complete

Table 2:  
Customer Intentions to Defect Measure

Variable	Items
Customer Intentions to Defect	If this hairdresser were to move to another nearby salon: (1) I would stay at the existing salon and try another hairdresser* (2) I would immediately follow this hairdresser to the new salon

\*reverse-scaled

Table 3:  
CFA Measurement Model Fit Indices

Model Fit Indices	Trust	Commitment	Attitude	Relative Attitude
$\chi^2$	27.05	9.25	1.75	5.94
Degrees of freedom	10	4	4	2
P value	0.003	0.055	0.783	0.051
GFI	0.978	0.990	0.998	0.991
AGFI	0.939	0.962	0.992	0.956
NFI	0.983	0.992	0.999	0.994
TLI	0.977	0.989	1.004	0.987
CFI	0.989	0.995	1.000	0.996
RMSEA	0.071	0.062	0.000	0.076

measure of commitment, items were taken from a number of sources to represent the two dimensions (Anderson and Weitz, 1992; Morgan and Hunt, 1994; Shemwell et al., 1994) and adapted to the service context. The results from a pre-test study gave no support for the dimensionality of commitment and the resulting purified 5 items that showed high reliability and validity were used here.

#### 4.4 Intentions to Defect

Two items were used to measure one of the possible behavioural outcomes of personal loyalty as given in Table 2. Response scores ranged from (1) strongly disagree to (7) strongly agree. A composite average score of intentions to defect was derived from the two items.

### 5. Research Design

A random sample of 3,000 Melbourne metropolitan telephone numbers was drawn from "Australia on Disk" which is an electronic listing of the White Pages telephone directory. Each sample phone number was dialed up to three times before it was discarded. The market researcher asked to speak with the female in the household who was over 18 years of age and who would most often go to a hairdresser. Where this person came to the

phone it was determined if she fulfilled the sampling criteria of using a hairdressing service at a salon at least once every 8 weeks. If the respondent fulfilled the criteria she was then asked whether she would mind accepting a self-completion questionnaire that would be sent in the mail. The respondent was not pushed into accepting the survey package, it was made clear that participation was purely voluntary. A total of 2169 contacts were made to recruit 485 qualified and willing females. Of those contacted 77 (3.6%) qualified but did not agree to accept the survey, 187 (8.6%) did not qualify in terms of frequency of service usage, 95 (4.4%) did not qualify on attending a salon and 1325 (61%) refused to be interviewed or were unable to co-operate due to English language difficulties or they had no females in their household. Each agreeable participant was sent a questionnaire to complete within two days of the phone call. Of the 485 questionnaires sent, 395 were returned (81%) and of those 341 were useable. One follow-up phone call was made to those respondents who did not send back their questionnaire by the due date.

Exploratory factor analysis (EFA) was conducted to evaluate the proposed dimensionality of trust, commitment, attitude and relative attitude. An item whose measure of sampling adequacy and communality fell below

0.5 was considered for exclusion (Hair et al., 1998). The number of factors to be extracted was determined by examining the scree test, eigenvalues greater than 1 and the percentage of variance accounted for by the extracted factors (>60%). The EFA was conducted using principal component analysis with an oblique rotation for multi-dimensional constructs such as trust, (as the factors were expected to be correlated), to achieve a simpler factor solution. According to Hair et al. (1998) a significant factor loading for a sample size of 350 is 0.3; therefore factor loadings less than this were disregarded in interpretations (see results in Appendix 1).

Following EFA, confirmatory factor analysis (CFA) was conducted to further support the results obtained. CFA represents the measurement model of structural component modelling and through factor loadings and goodness of fit measures provides an assessment of convergent validity. In the measurement model, each of the remaining items were allowed to load only on its associated factor (which was identified both from the literature and in the exploratory factor analysis). As the chi-square statistic is affected by small and large sample sizes (Hair et al., 1998) six other indices in common use are also reported to evaluate the measurement model: the Goodness-of-Fit Index (GFI), the Adjusted Goodness-of-Fit Index (AGFI), the Normed Fit Index (NFI), the Tucker and Lewis Index (TLI), the Comparative Fit Index (CFI) and the Root Mean Square of Approximation (RMSEA). Following Bentler and Bonnet (1980) values greater than 0.9 have traditionally been used for GFI, AGFI, NFI, TLI and CFI as a rule of

thumb to indicate that the model provides an adequate fit. Browne and Cudeck (1993) suggest that RMSEA values of 0.08 or less indicate adequate fit.

Multiple regression analysis was then used to examine the predictive effects of the composite independent variables of credibility trust, benevolence trust and commitment on each personal loyalty index. Following this each personal loyalty index was assessed in terms of its ability to predict customer intentions to defect.

**6. Results**

*6.1 Trust*

The measurement model for trust indicated that all the factor loadings were high (i.e., >0.67) which suggests that all items are well represented by their underlying factor. The correlation between credibility and benevolence was high and positive (0.55) providing some support for the hypothesis that they are first order factors for a higher order latent variable, trust. Although a significant chi-square test, all other indices indicated a good model fit, suggesting the acceptance of the two-dimensional model of the customer’s trust in the hair stylist (see Table 3). Further, the resulting Cronbach coefficient alpha was 0.92 for the credibility dimension of trust and 0.87 for the benevolence dimension indicating a high degree of reliability in the scale.

*6.2 Commitment*

All items loaded on the one factor, providing further support for the unidimensionality of the construct (see

Table 4:  
Correlations Between Personal Loyalty Index 1 and 2, Commitment, Credibility and Benevolence Trust.

	1	2	3	4	5
1. PL1	1.0				
2. PL2	0.79	1.0			
3. Commitment	0.75	0.71	1.0		
4. Credibility Trust	0.73	0.61	0.76	1.0	
5. Benevolence Trust	0.57	0.49	0.63	0.55	1.0

All correlations are significant at p< 0.01

Table 5:  
Regression Results for PL1 and PL2

Independent Variables	PL1		PL2	
	Standardised Coefficients ( $\beta$ )	Significance Level	Standardised Coefficients ( $\beta$ )	Significance Level
Commitment	0.39	0.00	0.54	0.00
Credibility Trust	0.36	0.00	0.17	0.00
Benevolence Trust	0.13	0.00	0.06	0.21
F value	187.00	0.00	118.00	0.00
Degrees of freedom	340.00		340.00	
R-square	0.63		0.51	
Adjusted R-Square	0.62		0.51	

Appendix 1). The measurement model for commitment indicated that all the factor loadings were high (i.e., >0.65) suggesting that the items were well represented by their underlying factor. The chi-square test and all other fit indices indicated an acceptable model fit (see Table 3). Further, the resulting Cronbach coefficient alpha was 0.89 for the commitment construct indicating a high degree of reliability in the scale.

### 6.3 Attitude

As expected all items loaded significantly on the one factor as shown in Appendix 1. The measurement model for attitude indicated that all the factor loadings were high (i.e., >0.75) suggesting that the items were well represented by their underlying factor. A non-significant chi-square test and all other indices indicate an acceptable model fit (see Table 3). Further, the resulting Cronbach coefficient alpha was 0.94 for the attitude construct indicating a high degree of reliability in the scale.

### 6.4 Relative Attitude

As expected all items loaded significantly on the one factor as shown in Appendix 1. The measurement model for relative attitude indicated that all the factor loadings were high (i.e., >0.50), suggesting that the items were

well represented by their underlying factor. As shown in Table 3 although a near significant chi-square test, all other indices indicated an acceptable model fit. Further, the resulting Cronbach coefficient alpha was 0.85 for the relative attitude construct indicating a high degree of reliability in the scale.

Table 4 displays the correlations among all the variables of interest. Examination of the correlation matrix indicates that both PL1 and PL2 are significantly correlated with all three independent variables, although most closely correlated with commitment. The strength of association between personal loyalty (derived from relative attitude) and the independent variables is weaker overall than that between personal loyalty derived from attitude and the independent variables. The two loyalty indices are also significantly correlated with each other. A t-test of the means derived from each loyalty index found that the difference in means was significant ( $p < 0.01$ ). The independent variables were also significantly correlated with each other. However, the strength of association between the independent variables range between weak and moderate (Burns and Bush, 2000) suggesting that multicollinearity may not be a problem. This was further supported by an assessment of tolerance values and variance inflation factors which were well within their cutoff thresholds.

6.5 Regression Results

Results of the multiple regression analyses using PL1 and PL2 as dependent variables are shown in Table 5. In predicting PL1, commitment and the two dimensions of trust, perceived credibility and benevolence of the hair stylist were significant indicators, explaining approximately 63% of the variation. In contrast, with PL2 only commitment and the credibility dimension of trust were significant indicators and explained approximately 51% of the variance.

In an attempt to determine which of the two personal loyalty indices was the most effective in the prediction of customer defection in the event that the hair stylist was to move to another nearby salon, each personal loyalty index was used to explain customer's expressed intentions to defect. Both indices were found to be significant predictors and yielded similar results with PL2 providing a marginally better R-square (0.29 compared with 0.26), see Table 6. This result unfortunately does not provide guidance as to which personal loyalty index is the more effective in predicting customer defection. It appears that a personal loyalty index derived from attitude and relative attitude yield similar results and further replication work is warranted to confirm this.

7. Limitations

The findings and implications of this study must be tempered by several limitations. First, the suitability of a cross-sectional design may be disputed because of the dynamic nature of the constructs such as trust, commitment and loyalty which are seldom static. Future

research will benefit from the use of longitudinal designs. Second, this research took place within a single service industry and although earlier discussion would suggest that the results could be generalised to other personal and professional services, this study would have to be repeated across service types to confirm such.

8. Managerial Implications and Future Research

A measure of personal loyalty is critical to service businesses where the service worker is providing the primary service to the customer. This is the case for personal or professional services or where the service worker is the predominate, if not only route by which the customer obtains the organisation's product or service, for example industrial salespeople. Regression analyses provided support to the hypothesis that a customer's trust of and commitment to their hairdresser is an excellent indicator of the customer's personal loyalty, regardless of whether attitude or relative attitude is used to derive the personal loyalty index. In the interest of model parsimony, as the benevolence dimension of trust does not explain unique variance this need not be measured when the sole purpose of the investigation is to assess the degree of personal loyalty.

Although there appeared to be little difference in the regression outcome for Personal Loyalty Index 1 and 2, what is needed is further research as to which personal loyalty index provides the better indicator of changes in customer loyalty to the firm in situations where the service worker leaves the organisation. The most dramatic and serious outcome of personal loyalty is that of

Table 6:  
Regression Results for Intentions to Defect

Independent Variables	PL1	PL2
Standardised Coefficient ( $\beta$ )*	0.51	0.54
F value	112.00	130.00
Degrees of freedom	324.00	324.00
R-square	0.26	0.29
Adjusted R-Square	0.26	0.29

\*Significant at P<0.01

customer defection, but as already mentioned even if a customer's behaviour did not vary with the loss of the service worker, their attitude towards the service firm probably would change.

So how does a service manager deal with personal loyalty? If indeed under conditions of high personal loyalty only the customer's behavioural and not attitudinal loyalty is transferred to the firm, then the manager is encouraged to work on reducing the level of personal loyalty, employee transfers and turnover rates. Although the manager cannot directly influence the level of trust and commitment a customer may have for a particular service worker, the manager can work at making his/her team of service workers more homogeneous in service delivery quality and hence increase their overall perceived trustworthiness to the customer. To achieve this the customer must be exposed to the service delivery of other employees at the firm such that his/her perceptions of the service worker's uniqueness is eroded. Lower perceived differentiation among service employ-

ees reduces the likelihood of 'exclusive' personal loyalty forming. In situations where customers insist on being served by only their desired service worker managers have little choice but to employ good human resource practices designed to retain employees. These practices may include reward and recognition, increased training opportunities, and career development.

If attitudinal as well as behavioural loyalty is transferred to the firm under conditions of high personal loyalty, then managerial emphasis should not be placed on discouraging personal loyalty but should focus on retaining the service worker. This is because the firm enjoys the benefits of "true" loyalty that is the direct result of personal loyalty. Therefore, the burning question ripe for future research is to determine the relationship between a customer's personal loyalty and his/her loyalty to the service firm where the service individual works. The answer to this will determine whether managers should attempt to discourage or encourage personal loyalty.

Appendix 1:  
Unidimensionality and Reliability of Measures

Construct	Item Response categories ranged from (7) strongly agree to (1) strongly disagree	Eigen value	Standardised Factor loading	Variance explained	Cron- bach alpha
Attitude Towards Hairdresser	This hairdresser is good	4.1	0.93	81%	0.94
	I like this hairdresser very much		0.92		
	This hairdresser's work is of high quality		0.91		
	This hairdresser's manner is pleasant		0.83		
	I would recommend this hairdresser to others		0.92		
Relative Attitude Towards Hairdresser	I consider this hairdresser my first choice to handle my hair	2.9	0.93	73%	0.85
	I like this hairdresser more than other hairdressers I know of		0.93		
	This hairdresser is better than other hairdressers I know of		0.90		
	I only use this hairdresser because (s)he is available or allocated to me (R)		0.64		
Benevolence Trust	This hairdresser responds caringly when I share my problems with her/him	4.2	0.92	60%	0.87
	This hairdresser is like a friend		0.87		
	This hairdresser always tries to squeeze me in when fully booked		0.86		
	This hairdresser has gone out of her/his way for me		0.59		
Credibility Trust	This hairdresser is skilled at her/his trade	1.3	0.97	18%	0.92
	This hairdresser approaches her/his job with professionalism and dedication		0.92		
	The hair cut or colour I receive from this hairdresser always meets my expectations		0.87		
Commitment	I am very committed to this hairdresser	3.5	0.93	71%	0.89
	My continued association with this hairdresser is important to me		0.92		
	I am prepared to wait or make another appointment so that this hairdresser serves me		0.85		
	If this hairdresser left I would feel no loss (R)		0.76		
	I am continually on the lookout for a better hairdresser (R)		0.74		

R= reverse-scaled

## References

- Anderson, E., Weitz, B., 1992. The use of pledges to build and sustain commitment in distribution channels. *Journal of Marketing Research* 29 (February): 18-34.
- Blackman, B.A., 1985. Making a service more tangible can make it more manageable. In: Czepiel J.A., Solomon M.R., Surprenant C.F. (Eds.), *The Service Encounter. Managing Employee/Customer Interaction in Service Businesses*. Lexington Books, Toronto, pp. 291-302.
- Bove, L.L., Johnson L.W., 2001. Qualitative Assessment of "The Customer-Service Worker Relationship Model." Australian and New Zealand Marketing Academy Conference, 1-5 (December), Auckland, New Zealand.
- Burns, A.C., Bush, R.F., 2000. *Marketing Research*, Prentice Hall, New Jersey.
- Chow, S., Holden, R., 1997. Toward an understanding of loyalty: The moderating role of trust. *Journal of Managerial Issues* 9 (3): 275-298.
- Costabile, M., 2000. A dynamic model of customer loyalty. IMP: 16th Annual Industrial Marketing and Purchasing Conference, Bath, UK.
- Czepiel, J.A., Gilmore, R., 1987. Exploring the concept of loyalty in services. In: Czepiel, J.A., Congram C.A., Shanahan J. (Eds.), *The Services Challenge: Integrating for Competitive Advantage*. American Marketing Association, Chicago, pp. 91-94.
- Day, G.S., 1969. A two-dimensional concept of brand loyalty. *Research* 9 (3)pp. 29-35.
- Dick, A.S., Basu, K., 1994. Customer loyalty: Toward an integrated conceptual framework. *Journal of the Academy of Marketing Science* 22 (2), pp. 99-113.
- Ennew, C.T., Binks, M.R., 1996. The impact of service quality and service characteristics on customer retention: Small businesses and their banks in the UK. *British Journal of Management* 7: 219-230.
- Ganesan, S., 1994. Determinants of long-term orientation in buyer-seller relationships. *Journal of Marketing* 58 (April), 1-19.
- Garbarino, E., Johnson, M.S., 1999. The different roles of satisfaction, trust, and commitment in customer relationships. *Journal of Marketing* 63 (April), 70-87.
- Grandey, G.W., Dobni, D.M., Dobni, C.B., 1998. Handle with care. *Ivey Business Quarterly* 63 (Winter), 59-64
- Gremler, D.D., Brown, S.W., 1997. Towards a conceptual model of service loyalty. In: LeClair, D.T., Hartline M. (Eds.), *Marketing Theory and Applications*, AMA Winter Educators' Conference. American Marketing Association, Chicago, IL, pp. 218-219.
- Gremler, D.D., Brown, S.W., 1998. Worth beyond revenue: The full value of a loyal customer. In: Scheuing, E.E., Brown, S.W., Edvardsson, B. (Eds.), *Pursuing Service Excellence: Practices and Insights*. International Service Quality Association, pp. 119-128.
- Gruen, T.W., 1995. The outcome set of relationship marketing in consumer markets. *International Business Review* 4 (4), pp. 447-469.
- Hair, J.F.J., Anderson, R.E., Tatham, R.L., Black, W.C., 1998. *Multivariate Data Analysis*, Prentice-Hall International, New Jersey.
- Hennig-Thurau, T., Klee, A., 1997. The impact of customer satisfaction and relationship quality on customer retention: A critical reassessment and model development. *Psychology & Marketing* 14 (8), pp. 737-764.
- Hocutt, M.A., 1998. Relationship dissolution model: Antecedents of relationship commitment and the likelihood of dissolving a relationship. *International Journal of Service Industry Management* 9 (2), 189-200.
- Jain, A.K., Pinson, C., Malhotra, N.K., 1987. Customer loyalty as a construct in the marketing of banking services. *International Journal of Bank Marketing* 5 (3), 49-72.
- Jarvis, L.P., Wilcox, J.B., 1977. True vendor loyalty or simply repeat purchase behavior? *Industrial Marketing Management* 6, 9-14.
- Langton, J., 1997. Hair flies in coiffure row, *The Age*, Melbourne, pp. A19.
- Mägi, A., 1999. Store Loyalty? -An Empirical Study of Grocery Shopping. Dissertation for the degree of Doctor of Philosophy Thesis, EFI, The Economic Research Institute, Stockholm, 199 pp.
- Maister, D., 1995. Marketing to existing clients. In: Payne, A., Christopher, M., Clark, M., Peck, H. (Eds.), *Relationship Marketing for Competitive Advantage. Winning and Keeping Customers*. Butterworth-Heinemann, Oxford, pp. 253-268.
- McAllister, D.J., 1995. Affect- and cognition-based trust as foundations for interpersonal cooperation in organizations. *Academy of Management Journal* 38 (1), 24-59.
- Miettälä, A., Möller, K. 1990. International perspectives in professional business services. A conceptual analysis. In:

- Fiocca, R., Snehota, I. (Eds.), *Research Developments in International Industrial Marketing and Purchasing*, 6<sup>th</sup> IMP Conference. University of Bocconi, Milan, pp.759-781.
- Mitchell, A.A., Olson, J.C., 1981. Are product attribute beliefs the only mediator of advertising effects on brand attitude? *Journal of Marketing Research* 18 (August), 318-332.
- Morgan, R.M., Hunt, S.D., 1994. The commitment - trust theory of relationship marketing. *Journal of Marketing* 58 (July), 20-38.
- Payne, A., Christopher, M., Clark, M., Peck, H., 1994. Relationship marketing and the relationship management chain. *Asia - Australia Marketing Journal* 2 (1), 81-91.
- Pritchard, M.P., Havitz, M.E., Howard, D.R. 1999. Analyzing the commitment-loyalty link in service contexts. *Journal of the Academy of Marketing Science* 27 (3), 333-348.
- Pritchard, M.P., Howard, D.R. 1997. The loyal traveler: Examining a typology of service patronage. *Journal of Travel Research* (Spring), 2-10.
- Rempel, J.K., Holmes, J.G., Zanna, M.P. 1985. Trust in close relationships. *Journal of Personality and Social Psychology* 49 (1), 95-112.
- Rylander, D., Strutton, D. Pelton, L.E. 1997. Toward a synthesized framework of relational commitment: Implications for marketing channel theory and practice. *Journal of Marketing Theory and Practice* 5 (1), 58-71.
- Shemwell, D.J.J., Cronin, J.J.J., Bullard, W.R., 1994. Relational exchange in services: An empirical investigation of ongoing customer service-provider relationships. *International Journal of Service Industry Management* 5 (3), 57-68.
- Snyder, D.R., 1986. Services loyalty and its measurement: A preliminary investigation. In: Venkatesan, M. Schmalensee, D.M., Marshall C. (Eds.), *Creativity in Services Marketing: What's New, What Works, What's Developing*. American Marketing Association, Chicago, pp. 44-48.

Stum, D.L., Thiry, A., 1991. Building customer loyalty. *Training and Development Journal* 45 (April), 34-36.

Wilson, D.T., 1995. An integrated model of buyer-seller relationships. *Journal of the Academy of Marketing Sciences* 23 (4), 335-345.

Zaltman, G., Moorman, C., 1988. The importance of personal trust in the use of research. *Journal of Advertising Research* 28 (October/November), 16-24.

### Biographies

**Liliana L. Bove** is a lecturer at the School of Business, La Trobe University in Melbourne. Her teaching and research interests are in the areas of services marketing, customer loyalty and marketing research. Her work has previously been published in journals such as: *Journal of Business Research*, *International Journal of Service Industry Management*, *Australasian Journal of Market Research* and *International Quarterly Journal of Marketing*. Prior to commencing her academic career, she held various scientific, marketing and management roles over a ten year period in the chemical, airline and health industries.

**Lester W. Johnson** is Professor of Marketing and MBA Director, Mt Eliza Business School, Melbourne. His teaching and research interests are in the use of quantitative techniques in business research, particularly market research in services management and marketing. He has published widely in local and international journals as well as being co-author of three books. He is a past co-editor of the *Australasian Marketing Journal* and is currently Associate Editor of the *International Journal of Service Industry Management*.

### Correspondence Addresses

Liliana L. Bove, School of Business, La Trobe University, Bundoora, Victoria, Australia. Telephone: +61 (3) 9479 2615, Facsimile: +61 (3) 9479 5971, e-mail: l.bove@latrobe.edu.au, Lester W. Johnson, Mt Eliza Business School, 380 St. Kilda Road, Melbourne. Telephone: +61 (3) 8696 6742, Facsimile: +61 (3) 8696 6769, e-mail: ljohnson@mteliza.com.au

## **Establishing Customer Relationships on the Internet Requires More Than Technology**

James G. Barnes & Judith A. Cumby

---

### **Abstract**

The Internet revolution is challenging marketers to attract and retain customers, who in many cases, migrate to the Web for speed and convenience. This appears to contradict the essence of true relationship marketing which is founded on the emotional dimensions of interpersonal relationships: trust, commitment, investment by individuals, dependence, two-way communications, a sense of attachment, reciprocity, shared benefits and mutuality. The authors analyse recent research into the profiles of Internet users and their expectations when entering into technology-based relationships. Suggestions are presented for those wishing to establish genuine relationships with Internet customers. Such an approach should mitigate the risk to organisations of becoming a commodity and being taken for granted by consumers, thereby precluding the creation of true customer value.

*Keywords: Technology-based relationships, customer value*

---

### **1. The Internet Revolution**

No innovation of recent times has had such a profound impact on customer behaviour and on how business is conducted, as has the Internet. The use of the Web has radically changed customer expectations about convenience, speed, price, service and comparability (Hamel and Sampler, 1998). Consumers access the Web for information on products, services, costs, and features before they go to buy. It is expected that even those businesses without a Web presence (if there are any such businesses remaining in a few years) will be affected by their customers' use of the Web and will have to adjust their business practices to suit today's informed consumer. The challenge is to take the attributes of offline experiences and recreate them for online customers who currently value browsing ease, hassle-free ordering, speedy delivery (Almquist and Pierce, 2000), while dealing with customers' feelings of control and need for interaction (Dabholkar, 1996).

To deal with such radical changes to the interaction with customers as those brought about by the Internet, businesses need to develop stronger relationships with their customers through the creation of an e-commerce strategy, grounded in the fundamentals of customer relationships

Many businesses that exist only on the Internet, the so-called pure-plays, and Internet consulting companies purport to have the ability to strengthen customer relationships, largely through outbound communications and the use of sophisticated CRM software. However, just as enticing a customer with frequent-shopper points does not, on its own, create enduring loyalty, neither does the building of customer databases produce customer relationships.

Customer loyalty and strong customer relationships are built, as are all genuine relationships, on emotional foundations characterised by high levels of commitment and trust (Morgan and Hunt, 1994; Bitner, 1995). Trust builds slowly as people use a site, get good results, and repeatedly do not feel let down or cheated (Nielsen, 1999). Other important dimensions of relationships include investment by individuals, dependence, two-way communications, a sense of attachment, reciprocity, shared benefits and mutuality (Barnes, 2001). While the salience of these relationship dimensions vary according to circumstances and by customer, Barnes (1997) demonstrated that closeness contributes to longer lasting, more valuable relationships and is a leading factor in the referrals of new customers. Yet some marketers and

Figure 1:  
Internet Usage by Age Group

Age Group	Using the Internet	Bought Online Past 12 months
18 – 24	73%	25%
25 – 34	62%	39%
35 – 44	55%	34%
45 – 54	55%	43%
55 +	36%	29%

Source: Bristol Group, 2000.

firms that practise Customer Relationship Management (CRM) often fail to appreciate the importance of true customer intimacy – the backbone of a successful rewarding relationship – and engage in practices that serve to destroy, rather than build, relationships with customers (Fournier et. al., 1998). In many ways, such firms are their own worst enemies as they engage in marketing activities that serve to frustrate and annoy customers, in the name of getting closer to them.

As evidenced in the popular business press, those without an innate understanding of the true dimensions of customer relationships attempt to link Internet metrics with financial performance and are surprised to find no meaningful connection. Such an approach fails to consider the all-important progression from value creation to customer satisfaction, repeat patronage, loyalty, a feeling of closeness, solid customer relationships, and, eventually, to increased profits for the firm. An attempt to link Internet site visits or “sticky eyeballs” to financial performance is rather like trying to link cars driving past a shopping mall to an individual store’s profitability! In this paper, the authors draw on findings from service and relationship marketing research to investigate the impact the Internet is having on customer relationships. Findings from research conducted by a leading customer relationships consultancy are presented. Recommendations are made for those wishing to solidify true relationships with customers through the Internet.

## 2. Who’s Using It; Who’s Not?

Recent research conducted by Bristol Group in the United States and Canada confirmed that almost 58% of

adults surveyed were users of the Internet. Predictably, the highest level of Internet usage (73%) was among those aged 18 to 24, while the lowest (36%) was among those aged 55 and older. As illustrated in Figure 1, the pattern of Internet buying across the age groups was, however, surprising.

These results confirm recent research that Bristol Group carried out with Canadian university students where it was found that, despite the fact that virtually all of them were regular users of the Internet, only 17% had ever bought anything online. Their reasons for not buying online included the fact that they did not have a credit card or were reluctant to provide credit card numbers. Concerns over security erode consumers’ trust in dealing with the Internet site, thus making it difficult, if not impossible, to satisfy the customer. Although customer satisfaction will not be elicited by gratification of the need for security, violation of basic level needs, including protection against economic harm, may result in extreme behaviour by the customer (Schneider and Bowen, 1995), in this case, failing to enter into a transaction.

McKinsey Consulting has undertaken a segmentation of online consumers that provides a valuable understanding of to whom online marketers might direct their offers. To gain insight into these segments, McKinsey and Media Metrix analysed online behaviour using a sample of active online consumers from the Media Metrix panel of 50,000 Internet users (McKinsey Marketing Practice, 2000). They divided the Internet market into six active segments labeled Simplifiers, Surfers, Bargainers, Connectors, Routiners, and Sportsters. The characteristics of these segments, including the percentage of the

total base of Internet users accounted for by each, are presented in Figure 2.

Simplifiers spend little time online but account for half of all online transactions. They are experienced Internet users and want “end-to-end” convenience; ease of access and use, readily available and reliable information, and easy returns. Surfers are a fairly small segment, but account for 32% of time spent online. This group enjoys controlling the transaction process, the search for a great price, and the sense of community that search affords them. They require novelty and variety to get them back. The challenge is getting them to put down roots.

Bargainers are on the Internet for one purpose; to obtain the best deal available. While they are a small percentage of Internet users, they account for 52% of visits to eBay, and are heavy users of priceline.com, uBid.com, and Quote.com. They are classic price shoppers who are turned on by the “excitement” of the search. The site must appeal to Bargainers on both rational and emotional levels. The Connectors are newcomers to the Internet. They are just learning to use the medium and are trying to figure out what’s online for them and how they can derive value. They use the Internet to connect with other people through chat lines and the sending of e-greeting cards. The Connectors need reassurance when using the Internet, and established offline brands are able to provide this. The owners of major brands have an advantage, therefore, in attracting this segment to their online

sites. They can lead the novice Internet user online by delivering an integrated strategy that provides a lifeline to this segment that needs the comfort provided by established brands.

Routiners are creatures of habit. They visit the fewest Web sites and spend more time at each one. Over 80% of their time online is spent with their top ten sites, mostly news and financial services. Sportsters are similar to the Routiners in that they too are not particularly adventurous. They spend even less time online but visit more sites, choosing to concentrate on sports and entertainment sites.

Research results such as these shed light on the fact that Internet users demonstrate a diversity of behaviour that is typical of virtually any market. Trying to treat all segments alike is a recipe for disaster. As McKinsey concludes, “Given that Internet profitability is so dependent on customer repeat purchases and higher average transaction size, winning a loyal customer base in one of these segments is more likely to be profitable than skimming all of the segments (McKinsey Marketing Practice, 2000, p5).”

Reichheld and Schefter (2000) also analysed categories of on-line customers. Their research indicated that the largest single segment of on-line customers were seeking convenience above all else. The way a site is designed and marketed has a large impact on the types of

Figure 2:  
Online Consumer Segments

Segment	Percent of Internet Users	Hours active/month	Unique domains accessed/month	Pages accessed/month	Percent buying
Simplifiers	29	7.1	62	1,021	87
Surfers	8	30.2	224	4,852	71
Bargainers	8	8.3	43	1,295	64
Connectors	36	5.7	54	791	42
Routiners	15	8.2	32	624	50
Sportsters	4	7.1	47	1,023	51
Average	100%	9.8	74	1,398	61

Source: McKinsey Marketing Practice, “All Visitors Are Not Created Equal,” April 2000 (www.mckinsey.com).

customers it attracts. Some sites attract a rich mix of loyalty-oriented customers and others primarily attract the price butterflies who flit from site to site seeking bargains. Loyalists tend to be referred customers who, in some instances, use the people who referred them for advice and guidance rather than calling the technical support desk. In effect, loyal customers not only take over the function of advertising and sales, they even staff the company's help desk – for free! (Reichheld and Schefter, 2000).

### 3. Technology-Based Relationships

Technology allows customers to access products and services that they might not obtain in their local area and provides companies with more direct control over a customer's online experience than it has over the offline experience. However, *"the Internet and its current technological complexity offer more opportunities to destroy brand equity than to create it. Customers go to the Internet to save time through a hassle-free experience, so any bump in the road – slow response times, poor navigation, inaccurate information, unresponsive customer service, difficulty in returning items – can seriously weaken the brand. This is particularly true where a massive advertising campaign has raised customer expectations that are then undermined by the experience"* (Almquist and Pierce, 2000, 70).

The Internet, itself a provider of service, enables customers to access the core product, service or information that they need; the financial transaction, the airline reservation, or latest CD. It delivers support services by enabling customers to obtain information or to effect transfers of funds or the purchase of products. The Internet also generally enables service to be carried out in an efficient and timely fashion, leading to the conclusion that the service is technically accurate. In short, the Internet, as it is presently being used, creates value largely in the form of access and convenience. Where the focus is on offering the lowest price available, clearly the attempt is to create value for money. But, the existence and use of the Internet may eliminate, or may make very difficult, interaction with employees of the firm, and seems to pay little attention to how the customer is made to feel by the interaction. It is possible, at this still early stage of establishing bonds with customers through utilisation of the Internet, that many companies are succeeding in creating primarily negative emotions, rather than positive ones. As a result, organisations that have established close, strong relationships with their online customers are few and far between.

Many reviews of "excellent" sites evaluate the Web presence of various companies almost exclusively on their functionality. It is important to recognise that customers' dis/satisfaction with peripheral and support systems may have a spill-over effect on their evaluation of the core and the overall service (Goodman et. al., 1995). However, relationships are not merely functional; they are emotional. The increasing use of the Internet means that the "social" component of customer interaction is becoming systematically displaced. And an overwhelming number of online companies seem not to recognise the importance of these emotions in the interaction.

The creation of customer satisfaction online and the ultimate generation of repeat buying and loyalty as a result is entirely dependent on the extent to which the online retailer or service provider has created value for its target customers. Online business needs to consider how it can create high levels of both functional and emotional value for its customers. Emotional value has been shown to be the greater contributor to customer loyalty and the building of solid customer relationships. Such value is less easily replicated by competitors and the customer relationship is less vulnerable as a result. A challenge for marketers, both online and offline, is to establish the kind of closeness that will lead to the creation of emotional value (Barnes, 1997).

### 4. The Challenge Ahead

Customers engage in a great deal of window shopping on the Internet, browsing through online storefronts, placing items in shopping baskets, but never checking out. The percentage of visitors to e-commerce sites who actually make a purchase is estimated at 3 to 5 percent (Barsh et. al., 2000). Because of frustrations with the checkout process, 32% of online shopping carts were abandoned during 1999's year-end holiday season (Allen, 2000). On-going research of One-to-One Online sites provides evidence of retailers' attempts to facilitate completion of purchases: an increase in use of "one-click ordering" from 20 percent to 45 percent in the six months ended September 2000 (eMarketer, 2000).

Such improvements in functional convenience value are laudable; however, more needs to be done to ensure that the customer feels close to the Internet company. Research by the Bristol Group (2000) reveals that the closer that customers feel to retailers of books, CDs and clothing, the more likely they are to remain customers in the future. Identical online and offline satisfaction levels

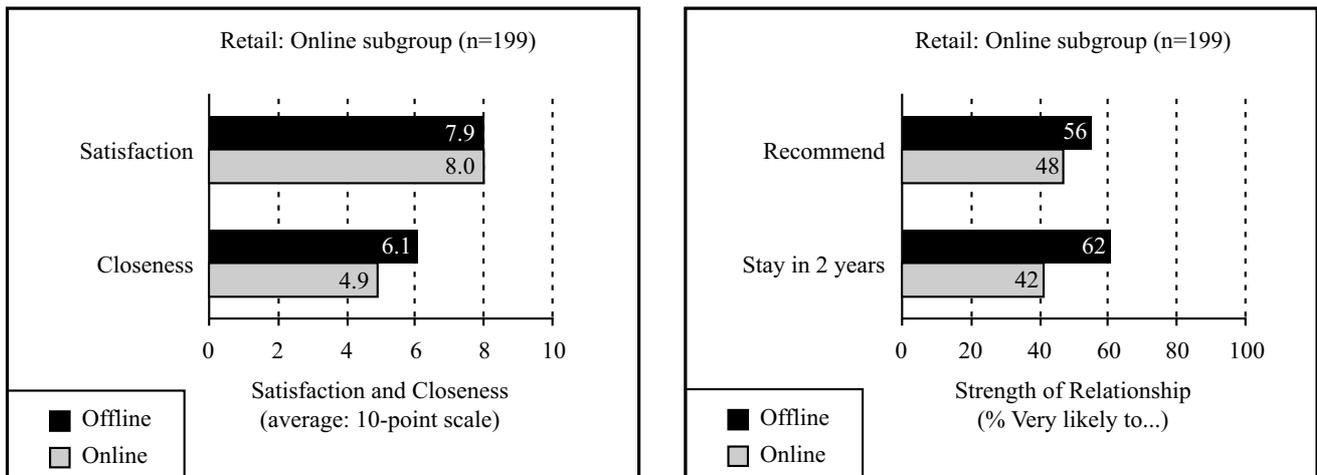


Figure 3

Source: Bristol Group, 2000

confirm that customers value the creation of different types of value in the two situations. While they value the convenience, access and efficiency offered by the online e-retailer, they place greater value on the interpersonal, emotive aspects of the offline relationship.

While it is true that building relationships on the Web will require some new processes and skills, it is necessary to ensure that customers are satisfied; the creation of emotional and functional value is a crucial contributor to this. There are ten ways that a company can contribute to the development of genuine customer relationships online.

4.1 Deliver great service

We have known for some time that delivering excellent service and ensuring customer satisfaction are critical to improved relationships and retention in any situation. Servicesoft Technologies report that 79% of online shoppers surveyed increased their patronage and spending at a Website when customer service was favourable (Business 2.0, 2000). Online customer service includes e-mail confirmation of orders, availability of inventory, letting the customer know up front that an item is out of stock, advising of shipping charges before the customer starts to check out, and so on. Reichheld and Schefter's (2000) study of repurchase patterns at leading Web sites found the five primary determinants of loyalty don't consist of technological bells and whistles, but rather

old-fashioned customer-service basics: quality customer support, on-time delivery, compelling product presentation, convenient and reasonably priced shipping and handling, and clear and trustworthy privacy policies.

4.2 Gain their trust

The relatively small percentage of Internet users who have made online purchases is testimony to the fact that some still are reluctant to provide credit card information. In the Bristol Group (2000) research referred to earlier, only 22% of Americans and 17% of Canadians agreed that "I feel comfortable giving personal information over the Internet." In addition to concerns about the security of providing credit card and other financial information, many simply are worried about the lack of privacy that the Internet affords. Companies such as Amazon.com and the mutual fund investor, Vanguard Group, recognise the importance of this and have invested in building sites that help establish solid foundations for trust, not just immediate sales. "Vanguard uses its online presence to inform and educate its customers, even when that means leading them away from a purchase. Vanguard understands that building trust leads to more enduring relationships - and more profits - while a quick sale may simply leave a customer feeling cheated" (Reichheld and Schefter 2000, 108). One metric used to gauge progress towards loyalty is repeat orders. In the first quarter of 2000, Amazon.com's orders from repeat

customers represented 76% of all orders in the period (Gardner, 2000).

In order to reassure customers that the information they provide will not be misused and that their privacy will be respected, some companies now provide guarantees on their sites confirming their adherence to a code of conduct relating to the security of information. In one survey, 48 percent of sites indicate that they will not share customers' personal data with outside parties, and half the sites allow customers to opt out of such arrangements (eMarketer, 2000). When customers do trust an on-line vendor, they are more likely to share personal information. That information enables the company to form a more intimate relationship with customers, offering products and services tailored to their individual preferences, which in turn increases trust and strengthens loyalty (Reichheld and Scheffer, 2000).

#### 4.3 Understand the customer

Companies operating on the Internet must understand consumer psychology. A Web site must not only be technically beautiful to behold, but must also be easy to use. The site should reduce customer frustration and provide positive reinforcement for the customer's decision to deal with the company. Firms that wish to operate successfully in the online world must appreciate that customer needs extend to the emotional as well as the functional. As well as needing speed, convenience and accuracy, online customers (as do offline customers) need to feel valued, important and understood.

#### 4.4 Communicate

Communication is one of the essential features of a relationship. The requirement for communication takes a number of different forms; it must be two-way, it must allow for the customer to contact the company easily, and outbound communication to the customer must be genuine. Communication through the Internet has to involve more than e-mailing customers with offers or the technology-based artificial reminders based on the customer's past behaviour. These are the equivalent of junk mail and are treated as such. That is not to say that occasional outbound communications with customer via e-mail is not effective. It can be if the communication appears genuine and offers the customer news or information that is of value. If it is based on data mining and comes across as a blatant sales effort, then it will be rejected.

Lands' End, one of the first catalogue-based apparel

companies to go online, acknowledges that you can't meet customer needs with technology alone (Bayne, 2000). The company recognises that "*technology isn't a magic bullet*"; extensive training of employees on good customer service is essential. Lands' End's customers are provided the option of dealing with the company through traditional 24-hour 1-800 numbers or through on-line technology. Lands' End Live helps "*humanise*" the company's Web presence and carry over its "*hometown*" feel to the Web. The focus is on real-time customer service; technology helps customers ask questions and get answers immediately. Lands' End Live is promoted in the company's catalogue, thereby emphasising the ease-of-use of the online application and ensuring there is no channel conflict.

#### 4.5 Customise and personalise

When using the Internet as a service delivery channel, the challenge for management is to design measures of personalisation into the contact. Many Web-based companies allow visitors to their site to customise their Web pages with information that is of particular interest and relevance to them. Some companies take the personalisation experience a step further by providing access to consultants by phone, e-mail, or live chat. The consultants identify customers who need help and then offer assistance. They can provide detailed information about products the visitor is interested in and can even send out samples with personalised hand-written notes (Kirsner, 1999). Over time, the ability to personalise will allow marketers to build from a strong position with one segment to serve multiple segments (McKinsey Marketing Practice, 2000).

#### 4.6 Be responsive

There is no faster way to end a relationship than sending a message to customers that they are not important enough for you to get back to them. Gartner Group looked at 50 top e-retail sites and assessed the quality of their customer relationship management (CRM) (Business 2.0, 2000). Gartner refers to much of the efforts at CRM as "*lip service*", since the offerings on the sites were indeed minimal:

- 10% of sites surveyed allow customers to track inquiries through to resolution
- 6% offer a feature asking the retailer to call the customer
- 24% have instant messaging
- only 28% even acknowledge that an e-mail enquiry was received.

#### 4.7 Create a sense of community

Many companies have been very adept at creating a “community” in an online environment. A true online community must have the capability of fostering the emotional linkage between the brand, the community, and the consumer. To do this, a company must get its customers communicating with the firm and with each other. If, however, a Web company is spending most of its marketing dollars on indiscriminant ads and on-line coupons, with little investment in building communities and promoting referrals, it is probably building long-term losses into its customer base (Reichheld and Schefter, 2000).

#### 4.8 Integrate

The “clicks and mortar” strategy highlights the need for an integrated strategy that combines traditional distribution with the Internet. Companies that are able to combine a traditional offline presence with an effective online offering may be at a competitive advantage in the future (The Economist, 1999). Some major retailers, including the Gap and Chapters now include computer terminals in their stores so customers can order online. Points on frequent shopper programs are earned both in store and online. One-to-One Online research indicates that of the surveyed Web sites with traditional bricks-and-mortar stores, 65 percent provide consumers with the option to buy or return items selected online to their stores (eMarketer, 2000). The guiding principles are flexibility and convenience through integration.

#### 4.9 Create involvement

*“Customers have more choices than ever, higher expectations than ever, and more marketers competing for their attention than ever;”* notes Bob Rogers, founder and chairman of BRC Imagination Arts Inc. (Kirsner, 2000). *“So how do you break through all of the clutter and capture the attention of customers suffering from sensory overload? By creating experiences that are so distinctive, so compelling, that they stand out in a crowded landscape. These days, companies and organisations want to embrace the power of Disneyland and create their own ‘brandlands’ — destinations (both real and virtual) that deliver a memorable message by telling a compelling story.”*

Creating a negative experience will lead to customers not coming back. They can defect far more easily in an online environment – at the click of a mouse. Successful Internet sellers like Dell Computer realise that owning

the customer experience and ensuring that it is as positive as possible will guarantee repeat business, positive word of mouth and other benefits of a solid customer relationship. Richard Owen, VP of Dell online, describes the customer experience as *“the sum total of the interactions that a customer has with a company; products, people and processes. It goes from the moment when customers see an ad to the moment when they accept delivery of a product—and beyond. Sure, we want people to think that our computers are great. But what matters is the totality of customers’ experiences with us: talking with our call center representatives, visiting our Web site, buying a PC, owning a PC. The customer experience reflects all of those interactions”* (Kirsner, 1999).

#### 4.10 Offer them an option

Not everyone wants to use the Internet. Not everyone has access to the Internet. The fundamental premise of market segmentation is that all customers can not be treated alike. This must be considered when determining the value created by the Internet and technology in general. Thus, when implementing e-commerce applications, firms should develop alternative and parallel systems to deliver the emotional content that characterises genuine customer relationships. This is where the “clicks and mortar” companies may be at a competitive advantage as they are able to offer a flexible system that would allow customers to access either technology-based or a more conventional, personal delivery, option, utilising both new and traditional channels.

Without opportunities for personal contact and the resultant affective component, organisations are leaving themselves vulnerable to being taken for granted by consumers and to the risk of becoming a commodity. This has been seen historically in the case of utility services such as electricity and telephone services, and is increasingly so in the technology-based delivery of financial services. The banking industry is in danger of becoming a commodity by going online. Ernst & Young LLP state that *“financial products are almost ideally suited to commodisation, and examples of the commodisation trend abound”* (Ernst & Young 1999, p.18). Their examples include reduced margins on mortgage products and the difficulty experienced by customers in distinguishing among mutual funds. Companies that put all of their eggs in the Internet basket run the risk of not being able to develop an effective differentiation strategy.

### 5. Building a Closer Internet Relationship

Customers must feel that value is being created from

interaction before they can begin to feel close enough to a company to want to establish a relationship. In an international research study of customers' usage of and attitudes toward the Internet, Bristol Group asked over 1600 respondents in Canada and the United States whether those who had dealt with companies online felt any closer to them as a result (Bristol Group, 2000). Only slightly more than one-quarter of customers who have used the Internet agreed that they felt any closer to companies as a result of dealing with them online. This is an important finding because it demonstrates that simply building a Web site is not sufficient. Customers must be made to feel that the online interaction resembles a personal interaction. Companies must design into their Internet strategies aspects that will encourage the development of long-lasting closer customer relationships, characterised by high levels of emotional content.

The challenge for companies migrating to the Internet is to preserve the relationship with customers that they have enjoyed in the offline setting, while achieving the benefits associated with dealing with customers online. It is this integrated strategy that will form the business model of the future (The Economist, 1999). Companies dealing with customers both online and offline need to know whether they have succeeded in maintaining a positive, strong customer relationship. They need to consider just how well they are doing in creating a close, genuine relationship in the online setting.

## 6. Just How Good Is Your Site?

There is much evidence of visitors to sites becoming frustrated and abandoning their search for information or even their desire to buy something. Reports abound of customers simply giving up on their attempts to do business with companies online—39% of shoppers fail to buy because sites were too difficult to navigate; 56% of attempts to search for information failed; 62% had an “I give up” experience within the past 60 days (Hercz, 2000). The obvious conclusion is that many companies make it very difficult for visitors to use their sites in a satisfying way, to obtain the information they need and to conclude business. Many firms are, as a result, now turning their attention to making their sites much more user-friendly, designing them or re-designing them with the customer in mind.

But this is not enough. If the Internet is to become a tool that contributes to the creation and maintenance of genuine relationships with customers, then companies must pay greater attention to what their Web presence is

doing to relationships. A Web site must deliver the right experience, show customers that the company is paying attention and cares about their business, and makes them feel good about their dealings with the firm. Satisfaction is affected by the level of service quality, the emotions perceived in connection with the service, and the sacrifices made to obtain the service (Liljander and Strandvik, 1997). It is critical that companies use their Web presence to create value for visitors and customers at a series of levels, often referred to as representing the “Drivers of Customer Satisfaction” (Barnes, 2001). Figure 4 presents examples of the criteria that may be applied at each level to assess the extent to which a company's Web site is effective in creating genuine customer relationships.

The Internet performs best at presenting a core product or service. In fact, many firms have limited their involvement on the Web to providing the most basic of service or information—the equivalent of putting the corporate brochure up on the Web site. Without differentiating the offer from competing sites, the firm is essentially commoditising its offer and competing largely on price, which is the principal appeal of many sites.

It is the provision of support processes and services that is the focus of most Web site evaluations. Assessments are based on whether the visitor was able to obtain what he or she wanted, in a timely manner, and in a form that was acceptable. Is it possible to complete the transaction, to obtain the information, and to actually have the product delivered when needed?

The interaction with the company and its employees can also be facilitated by a firm's Web site. The ability to send an e-mail message (and to get a prompt response), to make contact through a 1-800 number or by live chat, to create a more personal contact between the customer and the company are all part of the delivery of service at this level.

Of course, the customer's emotional response to the company is evoked at each of these levels. Schneider and Bowen (1995) argue that it is critical that “*your core service, the procedures you establish, and the way you deal with customers interpersonally leads to your customers feeling justly treated. Fair treatment is necessary to gain customer trust in the first place and long-term customers deserve special attention for their loyalty*” (p. 80).

## 7. Conclusion: Winning in the Online World

It is early days in the use of the Internet to build customer relationships. The challenge facing business is

Figure 4:  
Web Site Evaluation to Drive Relationship Building

Core Product or Service	<ul style="list-style-type: none"> <li>- online purchasing</li> <li>- offering lowest prices</li> <li>- providing wide selection</li> <li>- access to required information</li> <li>- visual presentation of products</li> <li>- options regarding service delivery</li> </ul>
Process and Support Systems	<ul style="list-style-type: none"> <li>- delivery and billing</li> <li>- credit options</li> <li>- statements regarding security of information</li> <li>- 1-800 help line available</li> <li>- e-mail access</li> <li>- speed and navigability of site</li> <li>- appropriate links</li> </ul>
Technical Performance	<ul style="list-style-type: none"> <li>- accuracy of information</li> <li>- ability to connect to links</li> <li>- items in stock</li> <li>- efficient delivery</li> <li>- on-time delivery</li> </ul>
Interaction with Company and Staff	<ul style="list-style-type: none"> <li>- timely response to e-mail</li> <li>- toll-free access to help desk</li> <li>- live chat to employees</li> <li>- provision of regular communication</li> </ul>
Emotional Elements	<ul style="list-style-type: none"> <li>- interactivity</li> <li>- ability to involve others</li> <li>- involvement in tracking order</li> <li>- chat rooms</li> <li>- customisation</li> <li>- personalisation</li> <li>- recognition of repeat visitors</li> <li>- creation of online community</li> </ul>

Source: Barnes, 2001, p. 253.

to make the Internet an appropriate tool in the relationship building process. Customers may see increased use of the Internet as enabling them to take control of service delivery, facilitating access and making it much more convenient to obtain routine services. But many resent the fact that such systems result in an erosion of relationships that existed in the past. The challenge companies face when they launch such systems is to foster closer customer relationships in the face of the technology.

The introduction of the Internet as a means to deliver certain components of service should be taken as a part

of a long-term corporate strategy. The focus should be toward using the technology to create mass customisation – to allow greater efficiency, consistency and value, while allowing a sense of recognition and individuality to the consumer. Further, this should be combined with attempts to segment customer groups, allowing them the choice of how (or whether) to use the technology. Some will adopt the technology early, others may never, or will with reluctance, accept it.

The emphasis has to be on integrating the use of the Internet into all other aspects of how a company interacts

with its customers. As many organisations intentionally migrate their customers online, established relationships are at risk. Steps must be taken to protect them and to make use of appropriate strategies to ensure that existing relationships are maintained and strengthened. It is imperative that a company's Internet strategy results in the creation of value for customers and other visitors to the Web site. Unless this essential building block of a relationship is present, there is little hope that genuine customer relationships will result.

### References

- Allen, D., "@ Your Service," [web article] June 28, 2000; [www.emarketer.com/enews/20000628\\_service.html](http://www.emarketer.com/enews/20000628_service.html) [Accessed 13 October 2000].
- Almquist, E., Pierce A., 2000. Retool your brand for the Web – or rethink your business? *Mercer Management Journal*, 12; [www.mercermc.com/publications/mmj12/mmj12.html](http://www.mercermc.com/publications/mmj12/mmj12.html) [Accessed 25 August 2000].
- Barnes, J.G., 2001, *Secrets of Customer Relationship Management: it's all about how you make them feel*, McGraw-Hill, New York, NY.
- Barnes, J.G., 1997. Closeness, Strength and Satisfaction: Examining the Nature of Relationships between Providers of Financial Services and Their Retail Customers. *Psychology & Marketing* 14 (8), 765-790.
- Barsh, J., Crawford, B., Grosso, C., 2000. How e-tailing can rise from the ashes. *The McKinsey Quarterly*, 3; [www.mckinseyquarterly.com/electron/hoetoo.asp](http://www.mckinseyquarterly.com/electron/hoetoo.asp) [Accessed 12 October 2000].
- Bayne, K., 2000. Humanize Your Web Customer Service. *e-Business Advisor* 18 (8), 12-17.
- Bitner, M. J., 1995. Building Service Relationships: It's All About Promises. *Journal of the Academy of Marketing Science* 23 (4), 246-251.
- Bristol Group, 2000. E-Business at the Speed of Like, March [report] n.a.; [www.bristolgroup.com](http://www.bristolgroup.com) [Accessed 14 February 2000].
- Business 2.0, "Flunking Customer Service," August 17, 2000; [www.business2.com/content/research/numbers/2000/08/17/16883](http://www.business2.com/content/research/numbers/2000/08/17/16883) [Accessed 9 October 2000].
- Dabholkar, P. A., 1996. Consumer evaluations of new technology-based self-service options: An investigation of alternative models of service quality. *International Journal of Research in Marketing* 13 (1), 29-51.
- The Economist, 1999. The real Internet revolution. (August 21) 53-54.
- eMarketer, "Most Sites Still Struggling to Improve Response to Customers," [web article] September 12, 2000; [www.emarketer.com/how2/articles/20000912\\_1to1.html](http://www.emarketer.com/how2/articles/20000912_1to1.html) [Accessed 13 October 2000].
- Ernst & Young, E-commerce: 1999 Special Report on Technology in Financial [Services; [www.eyi.com](http://www.eyi.com) Accessed March 2000].
- Fournier, S., Dobscha, S., Mick, D.G., 1998. Preventing the Premature Death of Relationship Marketing. *Harvard Business Review* 76 (1), 42-51.
- Gardner, D., 2000. Amazon's Customers Stick Around, [web article] April 26; <http://www.fool.com/portfolios/rulebreaker/2000/rulebreaker000426.htm> [Accessed 17 October 2000].
- Goodman, P.S., Fichman, M., Lerch, F.J., Snyder, P.J., 1995. Customer-Firm Relationships, Involvement, and Customer Satisfaction. *Academy of Management Journal* 38 (5), 1310-1324.
- Hamel, G., Sampler, J., 1998. The e-Corporation. *Fortune* (December 7), 80-92.
- Hercz, R., 2000. Making It Click. *Canadian Business* (January 10) 19-21.
- Kirsner, S., 1999. The Customer Experience. *Net Company*, Fall 1999; [www.fastcompany.com/nc/001/012.html](http://www.fastcompany.com/nc/001/012.html) [Accessed March 2000].
- Kirsner, S., 2000. Experience Required. *Fast Company*, October; <http://www.fastcompany.com/online/39/experience.html> [Accessed 9 October 2000].
- Liljander, V., Strandvik, T., 1997. Emotions in service satisfaction. *International Journal of Service Industry Management* 8 (2), 148-169.
- McKinsey Marketing Practice, 2000. All Visitors Are Not Created Equally. April, [www.mckinsey.com](http://www.mckinsey.com) [Accessed April 2000].
- Morgan, R.M., Hunt, S.D., 1994. The Commitment-Trust Theory of Relationship Marketing. *Journal of Marketing* 58 (July), 20-38.
- Nielson, J., 1999. Trust is a Must. *Business 2.0*, June 1; [www.business2.com/content/magazine/marketing/1999/06/01/19676](http://www.business2.com/content/magazine/marketing/1999/06/01/19676) [Accessed 9 October 2000].
- Reichheld, F.F., Scheffer, P., 2000. E-Loyalty: Your

Secret Weapon on the Web. *Harvard Business Review* (July-August), 105-113.

Schneider, B., Bowen, D. E., 1995. *Winning the Service Game*. Harvard Business School Press, Boston, MA.

### **Biographies**

**James G. Barnes** is Professor of Marketing and former Dean of the Faculty of Business Administration at Memorial University of Newfoundland, Canada. He has served as a Visiting Professor at many universities internationally, including Macquarie Graduate School of Management. He is a prolific author, having produced seven books, including the internationally-acclaimed *Secrets of Customer Relationship Management: it's all about how you make them feel*, published in 2001 by McGraw-Hill. He regularly delivers management workshops and seminars around the world.

**Judith A. Cumby** is an Associate Professor at the Faculty of Business Administration, Memorial University of Newfoundland, Canada. A Fellow Chartered Accountant, Judy has been engaged in interdisciplinary research in the fields of accounting and marketing. She has published cases and articles dealing with performance measurement in the knowledge-based economy, brand names, and equity of service quality initiatives and customer relationships.

### **Correspondence Addresses**

James G. Barnes, Judith A. Cumby, Faculty of Business Administration, Memorial University of Newfoundland, St. John's, Newfoundland, A1B 3X5 Canada. Telephone: (709) 737-4362 or (709) 737-4006, Facsimile: (709) 737-7680, e-mail: [jbarnes@mun.ca](mailto:jbarnes@mun.ca) or [jcumby@mun.ca](mailto:jcumby@mun.ca)

## The Effects of a Change in Customer Disposition on the Zone of Tolerance: A Longitudinal Study

James F. Devlin, Anne L. Gwynne & Christine T. Ennew

---

### Abstract

The zone of tolerance is recognised in both the service quality and satisfaction literature as representing both a range of expectations and an area of acceptable outcomes in service interactions. This analysis presents hypotheses which are derived from existing literature, concerning the possible impact of a change in the "disposition of the customer". That is whether cumulative experience has left the customer favourably or negatively disposed towards the service, and hence the impact on desired and adequate expectations and consequently the zone of tolerance. The study offers a particularly valuable insight as it is framed in a longitudinal dimension. Findings from a quantitative study suggest those who become more favourably disposed towards a service over time are likely to have significantly higher adequate expectations and a smaller zone of tolerance. Further analysis suggests that the change in the disposition of the customer is also significantly related to the change in adequate expectation standards over time.

*Key words: The zone of tolerance, adequate expectations, desired expectations, service quality*

---

### 1. Introduction

The positive consequences of companies achieving high levels of customer satisfaction and service quality are well documented (Buzzell & Gale, 1987; Rust & Zahorik, 1993; Zeithaml, Berry and Parasuraman, 1996). Indeed, service quality and customer satisfaction issues are important as companies attempt to differentiate their services and compete effectively in the marketplace (Parasuraman, Zeithaml & Berry [PZB], 1988; Brown & Schwartz, 1989). Most research in the area of service quality has been based upon the model developed by Parasuraman, Zeithaml and Berry (1985, 1988), which incorporates a comparison of customer expectations and perceptions of service performance. The majority of studies concerned with customer satisfaction have also been based around Oliver's (1977, 1980) expectation-disconfirmation paradigm, developed from earlier work by Engel, Kollat & Blackwell (1968). Although an intricate debate as to the relationship between service quality and satisfaction is beyond the scope of this paper, it should be noted that the two constructs are treated as distinct in the literature. Most research on customer satisfaction concentrates on assessments of specific transactions (Holbrook and Corfman, 1985), whilst serv-

ice quality concentrates on overall service excellence (Zeithaml, 1988). Quality is considered to be cognitive judgement, whilst satisfaction is related to affect or attitude (Oliver, 1993).

The existence of different categories of expectations has been acknowledged by both the service quality and customer satisfaction literatures (Woodruff, Cadotte & Jenkins, 1983; Tse & Wilton, 1988; Lewis, 1990; Teas 1993, Buttle, 1995), with particular attention being paid to adequate and desired standards (Parasuraman, Berry and Zeithaml, 1991; Berry, Parasuraman and Zeithaml, 1993; Zeithaml, Berry and Parasuraman, 1993; Zeithaml and Bitner, 1996). The posited existence of both adequate and desired expectations has given rise to the notion of a Zone of Tolerance (Berry, Parasuraman and Zeithaml, 1993), which represents a range of service quality outcomes which are deemed neither particularly good nor bad by consumers. The study presented here focuses upon whether the disposition of the customer has a significant effect on the zone of tolerance. In particular, the paper investigates whether a change in the disposition (i.e. overall attitude) of the customer over a period over time has a significant impact on the level of desired expectations, adequate expectations and, consequently,

the size and level of the zone of tolerance. As the level of adequate expectations is generally acknowledged to be the most fluid, the paper also investigates the relationship between the change in the disposition of the customer and the change in the level of adequate expectations. The context of the study is student banking services. The area under investigation is important as the literature suggests that the zone of tolerance is central to customer evaluations of service quality and satisfaction.

The paper proceeds as follows. In section two a literature review is presented which covers such matters as the zone of tolerance and the existence of differing classes of expectations. In section three the model is developed, and in section four the methodology of the study is explained. In section five results are discussed, before discussion and managerial implications are offered in section six. Finally, in section seven, brief conclusions are offered and limitations acknowledged.

## 2. The Zone of Tolerance

The zone of tolerance has been cited as an important concept in both the services management and consumer behaviour literature (Johnston, 1995). It has been employed to model the relationship between different expectation levels (Oliver, 1980; Zeithaml, Berry and Parasuraman, 1993) and has been employed to provide a range, or scale upon which to place a particular outcome. As such, the zone of tolerance can be used primarily to model expectations and explore influences on its size and nature. It can also be employed to classify outcome states. According to Johnston (1995) the service quality-disconfirmation model has three possible outcomes; (i) dissatisfaction, (ii) satisfaction and (iii) delight. The first of these three outcomes results from lower perceived quality, as compared to expectations. The second results from adequate perceived quality and the final category, delight, results from high quality. As Kennedy and Thirkell (1988) pointed out, the second outcome, satisfaction can be described as performance falling within the zone of tolerance. Such a line of argument is similar to the thinking of the SERVQUAL authors (Parasuraman, Berry and Zeithaml, 1991) who began by introducing the concept of desired service. According to Zeithaml, Berry and Parasuraman, (1996) desired expectations represent: *"the level of service the customer hopes to receive, consisting of a blend of what the customer believes can and should be delivered (p35)."*

Desired expectations are typically investigated in their research in terms of what excellent companies should

deliver. Next the authors add the concept of adequate service, which they characterise in terms of the minimum service a company can provide and still meet customers basic needs. According to Zeithaml, Berry and Parasuraman, (1996): *"the second, lower level of service is adequate service, which is the level of service the customer will accept (p35)."*

Zeithaml, Berry and Parasuraman, (1993) explicitly classify the area bounded by the two expectation standards, the *"zone of tolerance"*. At the lower end are adequate expectations, what the customer will expect and accept. At the upper end are desired expectations, what the customer believes should and could be provided by an excellent organisation.

Although the analysis undertaken in this study does not deal specifically with perceptions of performance, in the interests of completeness the following should be noted: Parasuraman, Berry and Zeithaml (1991) classified an outcome where performance is rated as below adequate service as a competitive disadvantage. An outcome between adequate and desired expectations, within the zone of tolerance is classified a competitive advantage, whilst perceptions of performance above desired expectations will, according to the authors, result in customer franchise. Such a schema shows marked similarity to that outlined by Johnston (1995); namely dissatisfaction, satisfaction and delight.

The discussion thus far has focused upon adequate and desired expectations. However, it should be noted that recent literature has acknowledged that several standards of expectations may exist (Tse & Wilton, 1988; Wilton & Nicosia, 1986; Buttle, 1995). Buttle (1995) provides a concise account of the six possible expectations standards identified in research by Teas (1993). Expectations can encompass: forecasted performance, predictions of future outcomes; deserved performance, what is thought just reward for customer input; equitable performance, performance consistent with a perceived set of costs; minimum tolerable performance, what performance must be; ideal performance, the optimal performance; and service attribute importance. Johnston, (1995) also notes that there are a range of possible expectations standards. He quoted La Tour and Peat (1979) and Miller, (1977) as evidence of researchers using a minimum possible expectation scale. At the other end of the spectrum, he sees ideal expectations, citing Mattsson (1992) and Miller, (1977). In between Johnston (1995) placed desirable and adequate expectations.

Others have written in terms of predictive expectations and desire congruency (Spreng & Olshavsky, 1993; Spreng, MacKenzie & Olshavsky, 1996) and best brand and product norms (Cadotte, Woodruff and Jenkins, 1987). As has been suggested above, predictive expectations appear broadly similar to adequate expectations. Although by admission of the authors “*a consensus about the definition of the desires construct has yet to emerge*” (Spreng, MacKenzie & Olshavsky, 1996; p16) desire congruency is characterised in terms of being more stable and linked to an individual’s higher level values. Such a line of argument is related to Zeithaml, Berry and Parasuraman’s (1993) concept of desired service, shaped by stable individual factors and personal needs. Thus, desire congruency will not be covered explicitly in this study, which will concern itself with adequate and desired expectations, arguably the two most dominant and most widely employed expectations scales to emerge from the literature, and the zone of tolerance between them.

The SERVQUAL authors have postulated at length regarding the zone of tolerance and influences upon its width and composition (Parasuraman, Berry and Zeithaml, 1991; Zeithaml and Bitner, 1996), however little systematic testing of propositions has been carried out. Indeed, the resultant lack of empirical analysis, particularly in the longitudinal timeframe, provides a main underlying rationale for this study. The SERVQUAL authors argued that desired service expectations are less subject to change than adequate expectations, with Zeithaml and Bitner (1996) relating the situation to an accordion where only one side moves to a significant degree. In addition, Berry, Parasuraman and Zeithaml (1993) suggested that those customers considered to be in a recovery situation (i.e. where poor service standards have resulted in customers having a negative disposition towards the service) are likely to have a higher set of adequate expectations and, notwithstanding the relative inflexibility of desired standards, a higher set of desired standards too. However, as adequate standards are likely to rise more than desired standards, the zone of tolerance will be smaller for customers in a recovery, or negative disposition, situation.

Johnston (1995) also suggested that a satisfying or dissatisfying transaction may have an impact on the zone of tolerance. He stated that: “*A failure in a single transaction may add a negative score toward the overall assessment of service and also sensitises customers to negative aspects of the service. Customers may become*

*more aware of, and indeed actively seek out, other negative experiences. An initial dissatisfying transaction will therefore have the effect of raising the lower threshold i.e. amending the customer’s expectation threshold during the service. (p55).”*

In other words customers with a negative disposition towards the service are more likely to see their threshold for adequate expectations raised as a result. Johnston makes an important related point: “*...service transactions that previously may have gone unnoticed may now manifest themselves as dissatisfying experiences as the customer has become more negatively disposed towards the service (p55).”*

Thus, the following section draws upon the literature discussed here and in particular the thoughts of Johnston (1995) related to the seminal work by PZB to derive a longitudinal model to facilitate empirical investigation.

### 3. Model Development

The model developed in this section is concerned with how changes in the disposition of the customer over time may impact upon current levels of adequate and desired expectations and the size of the zone of tolerance. In the service quality and customer satisfaction literature relationships between variables across time periods have been discussed both conceptually and, to a lesser extent, empirically (Oliver, 1996). The importance of longitudinal research and testing comes therefore from the evidence in the literature which suggests previous experiences can have an impact on present evaluations. Such a line of thinking is incorporated into the hypotheses derived in this section.

Hypotheses 1-3 below are designed to test the effect that, to use Johnston’s term, a change in the degree to which consumers hold a positive or negative disposition towards the service, i.e. an individual’s general inclination or frame of mind towards the service, may have on the size and composition of the zone of tolerance. In addition, hypothesis 1 incorporates the thinking of Parasuraman, Berry and Zeithaml, (1991) regarding customers in a recovery situation, i.e. those who find themselves negatively disposed to the service. The main argument is that customers who have become more positively disposed will reduce their level of expectations, whilst customers who have developed a more negative frame of mind towards the service will desire a higher level of expectations, as they are looking to the service provider to “*impress*” them. The first hypothesis deals with desired expectations and suggests that these will

vary to a small extent, as predicted by Parasuraman, Berry and Zeithaml (1991) and Berry, Parasuraman and Zeithaml (1993), with the disposition of the customer. Those becoming more negatively disposed towards the service will have slightly higher desired expectations, whilst those more favourably disposed towards the service will possess lower desired expectations. Thus:

*H1: Ceteris paribus, a change in the disposition of the customer towards the service over time will be inversely related to the level of desired expectations.*

The same argument can be applied to adequate expectations, however Parasuraman, Berry and Zeithaml, (1991) suggest that the potential for variation in adequate expectations is greater. Thus the impact of a change in the disposition of the customer is expected to be in a similar direction to that hypothesised above, but greater in magnitude. Customers who have developed a more negative frame of mind towards the service over time will also have a higher level of adequate expectations. For customers now more favourably disposed towards the service, adequate expectation standards are postulated to be lower, as customers have become more forgiving. Thus:

*H2: Ceteris paribus, a change in the disposition of the customer towards the service over time will be inversely related to the level of adequate expectations.*

If desired expectations change and adequate expectations change to a greater degree in the same direction, then by definition the size of the zone of tolerance has decreased. H3 therefore incorporates the reasoning employed to develop H1 and H2 and relates it to the size of the zone of tolerance. According to such reasoning the size of the zone of tolerance will become larger as the customer becomes more positively disposed towards the service. Such a statement represents a corollary to H1 and H2, should they hold. Thus:

*H3: Ceteris paribus, a change in the disposition of the customer towards the service over time will be positively related to the size of the zone of tolerance.*

However, it should be noted that there is a possibility that the influence of customer disposition towards the service may be the opposite of that suggested by the majority of the literature and incorporated into hypotheses 1-3. Indeed Zeithaml and Bitner (1996) mentioned the possibility of adequate service expectations rising when companies raise their general level of service. Such an argument would seem to imply that customer

with a trend towards a more favourable disposition towards the company, perhaps as a result of consistently good service, may well have higher adequate service expectations standards, whilst those with the opposite trend, akin to being in a recovery situation, may in the interests of realism, revise their adequate expectations downwards. Zeithaml and Bitner (1996) suggested that desired expectations are more likely to start and remain high, showing stability regardless of customer disposition. In addition, recent cross sectional empirical evidence supports the proposition that desired expectations are not related to the disposition of the customer (Gwynne, Devlin and Ennew, 2000). Therefore, alternative hypotheses can be formulated:

*H1a: Ceteris paribus, a change in the disposition of the customer towards the service over time will not influence the level of desired expectations significantly.*

*H2a: Ceteris paribus, a change in the disposition of the customer towards the service over time will be positively related to the level of adequate expectations.*

*H3a: Ceteris paribus, a change in the disposition of the customer towards the service over time will be negatively related to the width of the zone of tolerance.*

#### 4. Method

The data used to test the hypotheses developed above was provided by a questionnaire survey distributed to second year university students as part of a wider longitudinal study. No restrictions were made on the age, background, sex or nationality of the sample. Although use of a student sample is by no means ideal, students have been used to good effect in previous studies, as evidenced by peer recognition and subsequent publication in high quality, reputable journals (Halstead, Hartman and Schmidt, 1994; Sparkes and Hunt, 1998; Sinha and DeSarbo, 1998; Stafford 1998; Biswas, et al, 1999). Bearing this in mind, the researchers judge that, notwithstanding issues regarding generalisability, valuable insights may be gained from the data. The service which formed the focus of the study was retail banking, including all possible types of interaction. Retail banking services are highly typical of services offerings in terms of intangibility and other service characteristics and are an area where service quality considerations have been shown to be important (Lewis, 1993; Lewis and Smith, 1989). Therefore, it is suggested that retail banking represents a valid area for the study of the issues regarding the zone of tolerance investigated in this paper.

The questionnaire measured adequate and desired expectations, perceptions of service quality as well as overall feelings towards the relevant bank, in terms of satisfaction and favourable, or otherwise, disposition. For all items, seven-point Likert-style scales were used. The questionnaires formed an integral part of a longitudinal study carried out over 2 years, 1997-98. Response rates varied, but were generally in the order of 40% to 60%, with a sample size generally between 200 and 300. The "matched" sample size available for the regression analysis detailed below was 106. Questionnaires were coded so as to allow matching of the respondents. As part of the wider longitudinal study, an investigation of consistent and inconsistent responders found no significant evidence of non-response bias. Respondents comprised of 60% male and 40% female, which corresponded almost exactly to the gender distribution in the student body and was taken as a further indication of the absence of any substantive response bias.

Various measurement scales were required for the study. Firstly, an insight into customer's overall disposition towards the service. Due to space constraints and the wish to avoid respondent fatigue, a concise four item scale was employed, details of which are provided in Table 1. This scale was devised by combining those used in similar studies by Crosby and Stevens (1987) and Cronin and Taylor (1992). The reliability coefficient is highly acceptable, with an alpha of 0.96 and the scale was deemed to be suitable for use in further investigations. This measure was taken in both summer 1997 and summer 1998, so as to allow the change in the disposition of the customer to be measured.

Table 1:  
Disposition of Customer

Scale item	Anchors
The quality of service I am receiving is generally	Very Poor-Excellent
My feelings towards the service can best be described as	Very Unsatisfied-Very Satisfied
My feelings towards the service can be described as	Displeased-Pleased
My feelings towards the service can best be described as	Unfavourable-Favourable

Coefficient Alpha = 0.96

The study also measured adequate and desired service quality expectations using the SERVQUAL scale (Parasuraman, Zeithaml and Berry, 1988, 1991). In principle, SERVQUAL comprises five dimensions: tangibles, responsiveness, reliability, assurance and empathy. In practice, many studies have found these dimensions difficult to replicate (Carman, 1990; Bouman and Van der Wielde, 1992; Brown, Churchill and Peter, 1993). The larger longitudinal study of which this analysis forms part, measured adequate and desired expectations, perceptions of service and direct disconfirmation of service quality on a number of occasions and also found little consistency in the dimensions resulting from factor analysis. To aid analysis and comparison in this study, it was deemed appropriate to impose the SERVQUAL dimensions on the adequate and desired expectation scales. Although not ideal, such a course of action represents a pragmatic, practical solution to the problems of replication of the SERVQUAL scale. The resultant reliabilities were with one exception, highly acceptable, being significantly above the level of .50 suggested as adequate by Nunnally (1978). It was judged appropriate, therefore, to employ the scales to provide data concerning the level of adequate and desired expectations, as well as the resultant zones of tolerance for the testing of the hypotheses.

The hypotheses were tested formally by running a series of simple regressions. The change in the disposition of the customer from summer 1997 to summer 1998 (DISPCHAN) was, in all cases, the independent variable. The dependent variable was the relevant expecta-

tion measure in each case at the current time. For instance, the first regression employed the level of desired tangible factors (DESTAN) against the change in the disposition of the customer to establish whether the change has a significant effect on the level of such expectations. In establishing whether there was a significant effect, the overall fit of the model was considered, along with a t test to establish the level of significance of the explanatory variable. Subsequently, regressions were run for all of the dimensions of SERVQUAL for both desired and adequate expectations, as well as the size of the zone of tolerance. Finally, a series of regressions were run using the *change* in the level of adequate expectations and the *change* in the disposition of the customer to further elucidate the pertinent relationships within the data.

## 5. Results

*H1: Ceteris paribus, a change in the disposition of the customer towards the service over time will be inversely related to the level of desired expectations.*

*H1a: Ceteris paribus, a change in the disposition of the customer towards the service over time will not influence the level of desired expectations significantly.*

Hypothesis 1 relates a change in the disposition of the customer over time to the level of desired expectations in the current period and is based upon the relationship posited by Parasuraman, Berry and Zeithaml (1991) and Johnston (1995). That is to say, notwithstanding the relative inflexibility of desired expectations, those who have become relatively more negatively disposed towards the service are likely to exhibit a higher level of desired expectations, as their experiences have made them more demanding, in terms of the service that they desire. Alternatively, it may be the case, as suggested by Zeithaml and Bitner (1996) and confirmed empirically in a cross sectional setting by Gwynne, Devlin and Ennew, (2000) that desired expectations are relatively stable over time. Thus factors such as changes in the disposition of the customer will not have a significant influence on the level of desired expectations. Such a line of thinking is incorporated into hypothesis 1a.

The hypotheses were tested by regressing the level of desired expectations for the current time period against the change in the disposition of the customer over time. Results are shown in rows 1-5 of Table 2. Support for H1 would be signalled by a statistically significant negative coefficient on the independent variable and a reasonable amount of explanatory power. H1a is supported if few

relationships are apparent in the data. As can be seen from the table the R-square statistics for this set of regressions are very low and, with one exception, the coefficient on the change in disposition variable is not significant. The one exception to the main trend is that of the responsiveness dimension. However, on balance, it is evident that the data points to rejection of H1 and acceptance of H1a, with the change in disposition of the customer having very little effect on desired expectations.

*H2: Ceteris paribus, a change in the disposition of the customer towards the service over time will be inversely related to the level of adequate expectations.*

*H2a: Ceteris paribus, a change in the disposition of the customer towards the service over time will be positively related to the level of adequate expectations.*

The hypotheses were tested by regressing the level of adequate expectations in the current time period against the change in the disposition of the customer over time. H2 requires that a negative relationship be found, whilst H2a is associated with a positive relationship.

Results are shown in rows 6-10 of Table 2. The explanatory power of the regressions is, in general terms, limited, as shown by the adjusted R-square. However, the analysis is not seeking to show that change in the disposition of the customer is the sole influence on the level of expectations and the size of the zone of tolerance, but merely that it is one contributory factor. Such significance is measured by the t statistic of the coefficient. Results show that, with one exception, the change in the disposition of the customer does have a significant effect on the level of adequate expectations in the current time period. In all cases the relationship between changes in the disposition of the customer and the level of adequate expectations is a positive one, with customers who have become more positively disposed towards the service exhibiting higher levels of adequate expectations. Thus, it can be concluded that there is reasonable support for H2a and that H2 should be rejected.

*H3: Ceteris paribus, a change in the disposition of the customer towards the service over time will be positively related to the size of the zone of tolerance.*

*H3a: Ceteris paribus, a change in the disposition of the customer towards the service over time will be negatively related to the width of the zone of tolerance.*

The formation of H3 and H3a is directly related to H1, H2 and H1a, H2a respectively. That is to say, if H1 and H2 hold, then H3 would be expected to hold etc. H3

Table 2:  
Regressions: The Impact of Change in Customer Disposition on Desired, Adequate Expectations and Zone of Tolerance

Dependent Variable	Adjusted R-Square	Constant	Coefficient	T statistic (Significance)
DESTAN	0.00	5.65	0.02	0.28 (0.77)
DESREL	0.00	6.59	-0.05	-1.35 (0.17)
DESRESP	0.04	6.16	-0.14	<b>2.21 (0.03)</b>
DESASS	0.00	6.25	0.05	-0.86 (0.39)
DESEMP	0.00	6.08	0.08	-1.26 (0.21)
ADTAN	0.07	5.17	0.24	<b>3.18 (0.00)</b>
ADREL	0.05	4.92	0.26	<b>2.47 (0.00)</b>
ADRESP	0.02	4.73	0.17	1.70 (0.09)
ADASS	0.04	5.14	0.20	<b>2.34 (0.02)</b>
ADEMP	0.05	4.71	0.24	<b>2.58 (0.01)</b>
ZONTAN	0.03	0.48	-0.21	-1.92 (0.06)
ZONREL	0.06	1.66	-0.32	<b>-2.85 (0.00)</b>
ZONRESP	0.06	1.38	-0.31	<b>-2.77 (0.00)</b>
ZONASS	0.05	1.11	-0.25	<b>-2.57 (0.01)</b>
ZONEMP	0.07	1.36	-0.32	<b>-3.02 (0.00)</b>

Note: For all regressions, the relevant SERVQUAL dimension (Tangibles, Reliability, Responsiveness, Assurance, & Empathy) was the dependent variable and the change in the disposition of the customer from t-1 to t was the explanatory variable. Significance at the 5% level is signalled by bold text.

*Legend:*

*DESTAN:*  
*Desired expectations- Tangibles*

*ADTAN:*  
*Adequate expectations- Tangibles*

*ZONTAN:*  
*Zone of tolerance- Tangibles*

*DESREL:*  
*Desired expectations- Reliability*

*ADREL:*  
*Adequate expectations- Reliability*

*ZONREL:*  
*Zone of tolerance- Reliability*

*DESRESP:*  
*Desired expectations- Responsiveness*

*ADRESP:*  
*Adequate expectations- Responsiveness*

*ZONRESP:*  
*Zone of tolerance- Responsibility*

*DESASS:*  
*Desired expectations- Assurance*

*ADASS:*  
*Adequate expectations- Assurance*

*ZONASS:*  
*Zone of tolerance- Assurance*

*DESEMP:*  
*Desired expectations- Empathy*

*ADEMP:*  
*Adequate expectations- Empathy*

*ZONEMP:*  
*Zone of tolerance- Empathy*

Table 3

Regressions: The Impact of a Change in Customer Disposition on the Change in Adequate Expectations

Dependent Variable	Adjusted R-Square	Constant	Coefficient	T statistic (Significance)
DIFADTAN	0.04	0.05	0.21	<b>2.20 (0.00)</b>
DIFADREL	0.07	0.10	0.46	<b>2.96 (0.00)</b>
DIFADRES	0.10	-0.10	0.43	<b>3.58 (0.00)</b>
DIFADASS	0.17	0.16	0.44	<b>4.75 (0.00)</b>
DIFADEMP	0.16	0.17	0.47	<b>4.54 (0.00)</b>

Note: Regression results show the change in adequate expectations from t-1 to t for each SERVQUAL dimension as a function of change in the disposition of the customer over the same time period. Significance at the 5% level is signalled by bold text.

*Legend:*

*DIFADTAN: Difference in adequate expectations for Tangibles*

*DIFADREL: Difference in adequate expectations for Reliability*

*DIFADRES: Difference in adequate expectations for Responsiveness*

*DIFADASS: Difference in adequate expectations for Assurance*

*DIFADEMP: Difference in adequate expectations for Empathy*

states that a positive trend the disposition of the customer will be associated with a larger zone of tolerance, whilst H3a incorporates the opposite relationship. The hypotheses were tested by comparing mean zone of tolerance scores for the current time period against the change in the disposition of the customer over time. The dominant approach in the literature would suggest that those of an increasingly positive disposition would have a larger zone of tolerance, as their favourable general outlook towards the service leads them to take a more relaxed view of the service they are receiving. The alternative view incorporates the notion of a ratchet effect, with customers becoming ever more expectant.

The results show that, for all but one of the SERVQUAL dimensions (the exception being tangibles - ZONTAN) the size of the zone of tolerance is inversely related to the change in disposition of the customer over time. Thus, a

significant amount of support for H3a – the alternative hypothesis - is provided by the data, whilst H3 is rejected. Given the findings for the testing of H1, H1a and H2 H2a, then this result is perhaps not surprising.

It is apparent from the results discussed above that the relationship between the change in disposition of the customer over time and the current level of desired expectations, adequate expectations and the size of the zone of tolerance broadly supports those presented in H1a H2a and H3a. In addition, it is evident that the results highlight in particular the relationship between trends in customer disposition and adequate expectations, as desired expectations appear relatively stable. With this in mind, it was decided to investigate the relationship between the change in customer disposition and the change in the level of adequate expectations over time. Such data was available from the dataset and it was

judged that the results of such analysis would help to elucidate the pertinent relationships within the data. Consequently a regression was run with the change in adequate expectations over time as the dependent variable (e.g. DIFADTAN – difference in adequate expectations for tangibles) and the change in the overall disposition of the customer as the independent variable. Results are shown in Table 3.

As can be seen from Table 3, the relationship between the change in the disposition of the customer and the change in the adequate expectation standard over time is significant for all five dimensions of the SERVQUAL scale. The explanatory power of the regressions is, in general terms, also superior to those reported earlier. There is a clear relationship between the change in the disposition of the customer and the change in adequate expectations over the same time period. Thus, the results from the earlier analysis are confirmed by the regression focusing on the trend in the disposition of the customer compared to the change in adequate expectations. A positive trend in the disposition of the customer leads to a rise in adequate expectation standards over time and a narrowing of the zone of tolerance.

## 6. Discussion and Managerial Implications

The testing of hypothesis 1 and hypothesis 1a showed that whether customers had become more or less positively disposed over time did not appear to have any significant impact on the level of desired expectations in the current time period. The analysis presented in this paper appears counter to the arguments and propositions presented by Parasuraman, Berry and Zeithaml (1991) and Johnston (1995), that customers who, in general terms, find themselves with reason to be more unhappy about the general service they have received, are likely to be more demanding in terms of their ideal expectation standard in the future. Zeithaml and Bitner (1996) suggested an alternative scenario, namely that desired expectations are likely to be quite high and stable and are unlikely to be influenced by such factors as a change in the disposition of customers over time. The results presented here tend to lend weight to this argument.

In terms of managerial implications, it is suggested that it would be foolish for managers to assume that increasing the disposition or overall attitude of the customer towards the service company or brand over time may make the task of delighting customers any easier. Generally, happy and unhappy customers are likely to be equally hard to delight and as a result managers cannot

rely on the pool of goodwill that may be apparent with customers becoming more favourably disposed towards the service. Therefore, managers should work at delighting customers regardless of their disposition, as there is an equal chance that the outcome will be above desired expectations and a customer franchise will result. In addition, it may well be that desired expectations are influenced by less transitory factors, such as an individual's personal service philosophy. In this respect, further research is recommended to isolate the primary influences on desired expectation standards. It appears that such expectations are high and stable, meaning that frequent measurement may well be a waste of time and resources.

The testing of hypothesis 2 showed that those who have developed a more positive disposition towards the service over time can be expected to have a higher level of adequate expectations in the current time period and vice-versa, contradicting Parasuraman, Berry and Zeithaml, (1991), Berry, Parasuraman and Zeithaml, (1993) and Johnston (1995), and supporting Zeithaml and Bitner (1996). The conclusions from the testing of hypotheses 3 are a natural corollary of the findings thus far. The data show that the zone of tolerance will be narrower for customers who have developed a more positive disposition towards the service, principally due to the fact that adequate expectations will be higher. Further confirmatory testing showed that the change in disposition was also significantly related to the change in adequate expectations over the same time period, further illustrating the influence that trends in the disposition of the customer have on adequate expectations and, as a result, also the size of the zone of tolerance.

Thus, findings would suggest that customers who exhibit a trend of becoming generally more happy about what they have received and are generally growing more positively disposed towards the company are likely to be more demanding in terms of their adequate expectations. In essence, rather than a pool of goodwill building up and mitigating the level of adequate expectations, it would appear that customers become more demanding, the more favourably disposed they are. Conversely, those customers who are relatively disgruntled appear to temper their adequate expectations with realism when formulating expectations.

The implications for management of the findings from hypotheses 2 and 3 are as follows. Managers need to ensure that they do not become complacent as regards seemingly happy and positively disposed customers.

It would appear that such customers become more demanding as regards their adequate expectations and as a result the zone of tolerance narrows. Thus, it would appear that it becomes more difficult for managers to ensure that adequate expectations are exceeded and that the outcome is within the zone of tolerance. In essence it may become ever more difficult to satisfy such customers. In addition, over time, it may well be the case that adequate expectations tend towards ideal, or desired expectations and that the zone of tolerance becomes very small or disappears altogether. Although further longitudinal research is required to confirm this proposition, perhaps the answer is to concentrate upon exceeding desired expectations and create what Parasuraman, Berry and Zeithaml, (1991) would call a "customer franchise". For customers who are currently negatively disposed towards the service, then the company may be in a more favourable position than one might imagine. As the level of adequate expectations is lower and the zone of tolerance generally wider, then it may not be as difficult as envisaged to recover the customer and engender a more positive disposition. To re-iterate, further research is required across time periods to establish whether, for an organisation consistently providing excellent service the zone of tolerance narrows to the degree that adequate and desired expectations are, generally, not significantly different. The findings would also indicate that turning round poor service quality may not initially prove difficult, but customers quickly adjust to better service.

### **7. Limitations and Conclusions**

The three hypotheses derived from the literature have been tested, the results discussed and the managerial implications highlighted. Findings showed that the predominant posited relationship in the literature, that customers becoming more favourably disposed towards the service will have lower adequate expectations and a larger zone of tolerance are not backed by the study presented here. Indeed, the opposite relationship is highlighted, with customers who have become more favourably disposed towards the service having, in general, significantly higher adequate expectations and a smaller zone of tolerance. The findings are important for practitioners who should note in particular that customers of an increasingly positive disposition are likely to become more demanding in terms of the level of service they consider to be adequate. The potential limitations of the study include the fact that it incorporates a student sample. In addition, only one market is used in the study, that for student retail banking services.

Finally, the explanatory power of a number of the regressions is small. As a result, the validity and generalisability of the results could be called into question. However, notwithstanding such objections, the results are highly consistent and incorporate a number of significant relationships between the variables. In this manner, it is suggested that the paper makes a valid contribution to an area of interest to academics and practitioners alike.

### **References**

- Berry, L.L., Parasuraman, A., Zeithaml, V.A., 1993. "Ten lessons for improving service quality". Marketing Science Institute, Report No 93-104, (May).
- Biswas, A., Pullig, C., Krishnan, B.C., Burton, S., 1999. "Consumer evaluation of reference price advertisements: Effects of other brands' prices and semantic cues". *Journal of Public Policy & Marketing*, 18 (1), 52-65.
- Bouman, M., Van der Wiele, T., 1992. "Measuring service quality in the car service industry: Building and testing an instrument". *International Journal of Services Industry Management*, 3 (4), 4-16.
- Brown, T.J., Churchill, G.A., Peter, J.P., 1993. "Improving The Measurement Of Service Quality". AC Nielsen Working Paper, Nos. 91-94, University of Wisconsin, Madison, WI.
- Brown, S.W., Schwartz, T.A., 1989. "A dyadic evaluation of the professional services encounter". *Journal of Marketing*, 53 (April), 92-98.
- Buttle, F., 1995. On The Role Of Expectations. In *SERVOUAL, MEG Annual Conference Proceedings*, 112-122.
- Buzzell, R., Gale, B., 1987. *The PIMS Principle: Linking strategy to performance*. Free Press, NY.
- Cadotte, E.R., Woodruff, R.B., Jenkins, R.L., 1987. "Expectations and norms in models of consumer satisfaction". *Journal of Marketing Research*, 24 (August), 305-314.
- Carman, J.M., 1990. "Consumer perceptions of service quality: An assessment of the SERVQUAL dimensions". *Journal of Retailing*, 66 (1), Spring, 33-35.
- Cronin, J.J., Taylor, S.A., 1992. "Measuring service quality: A re-examination and extension". *Journal of Marketing*, 56 (July), 55-68.
- Crosby, L.A., Stephens, N., 1987. "The Effects of Relationship Marketing on Satisfaction, Retention and Prices in the Life Assurance Industry". *Journal of*

- Marketing Research, 24 (November), 404-411.
- Devlin, J.F., 1998. "Adding value to service offerings : the case of UK retail financial services". *European Journal of Marketing*, 32 (11-12), 1091-1109.
- Engel, J.F., Kollat, D.T., Blackwell, R.D., 1968. *Consumer Behaviour*. NY, Holt, Rinehart & Winston.
- Gwynne, A.L., Devlin, J.F., Ennew, C.T., 2000. "The Zone of Tolerance: Insights and Influences". *Journal of Marketing Management*, 16, 545-564.
- Halstead, D., Hartman, D., Schmidt, S.L., 1994. "Multi-source effects on the satisfaction formulation process". *Journal of the Academy of Marketing Science*, 22 (2), 114-129.
- Holbrook, M.B., Corfman, K.P., 1985. "Quality and Value in the consumption experience: Phaedrus rides again". In: Jacoby & Olson (Eds) *Perceived Quality*, Lexington.
- Johnston, R., 1995. "The zone of tolerance: Exploring the relationships between service transactions and satisfaction with the overall service". *International Journal of Service Industry Management*, 6 (2), 46-62.
- La Tour, S.A., Peat, N.C., 1979. "Conceptual and methodological issues in consumer satisfaction research". Wilkie, W.L., (Ed), *Advances in Consumer Research*, 6, 432-7.
- Lewis, B.R., 1990. "Defining and measuring the quality of customer service". *Marketing Intelligence & Planning*, 8 (6), 11-17.
- Lewis, B.R., 1993. "Service Quality: Recent developments in financial services". *International Journal of Bank Marketing*, 11 (6), 19-25.
- Lewis, B R & Smith, A m (1989) "Customer Care in the Service Sector: The customer's perspective", FSRC, Manchester School of Management.
- Mattsson, J., 1992. "A service quality model based on an ideal value standard". *International Journal of Service Industry Management*, 3 (3), 18-33.
- Miller, J.A., 1977. "Exploring satisfaction, modifying models, eliciting expectations, posing problems and making meaningful measurements". In: Hunt, H.K., (Ed). *Conceptualisation and Measurement of Customer Satisfaction and Dissatisfaction*. Marketing Science Institute, Cambridge, MA.
- Nunnally, J.C., 1978. *Psychometric Theory*, McGraw-Hill Book Company, New York.
- Oliver, R.L., 1977. "The effects of expectations and disconfirmation on post-exposure product evaluations". *Journal of Applied Psychology*, 62 (April), 246-250.
- Oliver, R.L., 1980). "A cognitive model of the antecedents and consequences of satisfaction decisions". *Journal of Marketing Research*, 17 (November), 460-469.
- Oliver, R.L., 1993. "A conceptual model of service quality and service satisfaction". *Advances in Services Marketing and Management*, 65-86.
- Parasuraman, A., Berry, L.L., Zeithaml, V.A., 1991. "Understanding customer expectations of service". *Sloan Management Review*, 32 (2).
- Parasuraman, A., Zeithaml, V.A., Berry, L.L., 1985. "A conceptual model of service quality and its implications for future research". *Journal of Marketing*, 49, 41-50.
- Parasuraman, A., Zeithaml, V.A., Berry, L.L., 1988. "SERVQUAL: A multi-item scale for measuring consumer perceptions of service quality". *Journal of Retailing*, 64 (1), Summer.
- Rust, R.T., Zahorik, A.J., 1993. "Customer satisfaction, customer retention and market share". *Journal of Retailing*, 69, 193-215.
- Sinha, I., DeSarbo W.S., 1998. "An integrated approach toward the spatial modelling of perceived customer value". *Journal of Marketing Research*, 35 (2), 236-249.
- Sparks, J.R., Hunt, S.D., 1998. "Marketing researcher ethical sensitivity: Conceptualisation, measurement, and exploratory investigation". *Journal of Marketing*, 62 (2), 92-109.
- Spreng, R.A ., Olshavsky, R.W., 1993. "A desire congruency model of consumer satisfaction". *Journal of the Academy of Marketing Science*, 21 (Summer), 169-177.
- Spreng, R.A., MacKenzie, S.B., Olshavsky, R.W., 1996. "A re-examination of the determinants of consumer satisfaction". *Journal of Marketing*, 60 (July), 15-32.
- Stafford, M.R., 1998. "Advertising sex-typed services: The effects of sex, service type, and employee type on consumer attitudes". *Journal of Advertising*, 27 (2), 65-82.
- Teas, 1993. "Consumer expectations and the measurement of perceived service quality. *Journal of Professional Services Marketing*, 8 (2), 33-53.
- Tse, D.K., Wilton, P.C., 1988. "Models of consumer satisfaction formation: An extension". *Journal of Marketing Research*, 25 (May), 204-212.

Wilton, P., Nicosia, F.M., 1986. "Emerging paradigms for the study of consumer satisfaction". *European Research*, 14 (January), 4-11.

Woodruff, R.B., Cadotte, E.R., Jenkins, R.L., 1983. "Modelling consumer satisfaction processes using experience-based norms". *Journal of Marketing Research*, 20 (August), 296-304.

Zeithaml, V.A., 1988. "Consumer Perceptions of Price, Quality And Value: A Means-End Model And Synthesis Of Evidence". *Journal of Marketing*, 52, 2-22.

Zeithaml, V.A., Bitner, M.J., 1996. *Services Marketing, International Edition*, McGraw-Hill, Singapore.

Zeithaml, V.A., Berry, L.L., Parasuraman, A., 1993. "The nature and determinants of customer expectations of service". *Journal of the Academy of Marketing Science*, 12 (1), 1-12.

Zeithaml, V.A., Valerie, A., Berry, Leonard, L., Parasuraman, A., 1996. "The Behavioural Consequences of Service Quality". *Journal of Marketing*, 60 (April), 31-46.

### **Biographies**

**James F. Devlin** is currently Senior Lecturer, Division of Business and Management at the University of Nottingham in Malaysia and Senior Lecturer in Marketing at the University of Nottingham Business School. After graduating, he worked for a number of years for Lloyds Bank Private Banking in the area of fund management. Jim has researched and published in the area of Marketing Financial Services since joining the University of Nottingham in 1991, where he completed his Ph.D. in 1996. Jim joined City University Business School in 1998 and continued to research aspects of marketing financial services and publish in such journals as *European Journal of Marketing* (Best

Paper Prize 1999), *Journal of Marketing Management*, *Journal of Strategic Marketing*, *Service Industries Journal*, *International Journal of Bank Marketing* and others. In September 2000 Jim rejoined the University of Nottingham and was seconded to the University of Nottingham in Malaysia.

**Anne Gwynne** is a management consultant working for Accenture. She completed her PhD in 1998 at the University of Nottingham investigating the antecedents, measurement and consequences of service quality and customer satisfaction in a longitudinal framework.

**Christine Ennew** is Professor of Marketing in the Business School at the University of Nottingham. She received her PhD from the University of Nottingham in 1985 and spent two years working at the University of Newcastle upon Tyne before returning to Nottingham in 1987. Her research interests lie primarily in the area of services marketing and internet marketing with a particular interest in the marketing of financial services. She is editor of the *International Journal of Bank Marketing* and a member of the Editorial Boards for *Journal of Marketing Management*, *Journal of Strategic Change*, *Entrepreneurship: Theory and Practice* and *Journal of Financial Services Marketing*. She has authored a range of academic and non-academic books and articles on the subject of marketing. Her university teaching experience includes services marketing, financial services marketing and public sector marketing.

### **Correspondence Addresses**

Dr James F. Devlin, Senior Lecturer, Division of Business and Management, University of Nottingham in Malaysia, Wisma MISC, Jalan Conlay 50450 KL, Malaysia, e-mail: James.Devlin@nottingham.ac.uk

# Innovation in Services: The Need for Knowledge Management

Chris Storey & David Kelly

---

## Abstract

This paper reports the findings of a research investigation into the effect of knowledge management (KM) on the performance of programme-level services innovation. It explores the factors which influence the way in which the "task knowledge" required to complete the new service development (NSD) process is created, transferred and stored. Based on results of a large survey of UK-based service companies, a number of underlying dimensions of KM activities are identified. Knowledge creation consists of a learning culture, an entrepreneurial climate, organisational creativity and a shared vision. Knowledge transfer is characterised by collaborative working, rich communication, empowerment and shared knowledge. Knowledge storage comprises knowledge systems, decision systems and documentation. A strong relationship between KM and the success and innovativeness of a NSD programme is demonstrated.

*Key words: New service development, new product development, knowledge management*

---

## 1. Introduction

Knowledge management (KM) is the term generally applied to the approach of adding or creating value by more actively leveraging the know-how, experience and judgement resident within the business. Knowledge management has only recently emerged as an explicit area of pursuit for managing businesses, and even more recently as a topic of serious academic study. Although knowledge-related theories reflect an intuitive understanding of the effects of learning and knowledge-based resources on business performance, there is a clear need for empirical research to demonstrate the relative importance of KM to the performance of businesses. This paper assesses the impact of KM on one vital area of a service firm's activities - new service development (NSD). It explores the way in which one form of knowledge or know-how, i.e. the "*task knowledge*", required to develop new services, is created, transferred and stored. This research has two objectives: (i) to understand the underlying dimensions of KM in relation to NSD, (ii) to explore the impact of the KM practices on NSD success. In doing so it seeks to build upon the growing body of research that tries to explain the performance of firms' NSD activities.

## 2. Knowledge in New Service Development

An organisation's NSD capability depends on its knowledge in a specific area i.e. its set of differentiated skills, complementary assets, and routines of NSD. Conceptually, the knowledge required is closely related to the know-what, know-how, know-why and care-why referred to in the knowledge literature (e.g. Chew et al. 1991, Garvin 1993). Therefore service businesses need to develop their specialist knowledge and skills if they are to effectively execute the activities of the NSD process. This is the sphere of KM.

KM encompasses three main activities: (i) knowledge creation; (ii) knowledge transfer, and (iii) knowledge storage. From these areas emerge a body of knowledge (e.g. about NSD) that can be exploited (e.g. bringing new services to the market). These activities of KM are now discussed, with specific reference to KM in the context of (New Product Development) NPD/NSD.

### 2.1. Knowledge Creation

The process of creating new knowledge requires that organisational members acknowledge the existence of useful data and information and then transform it, through some form of process, into insights that can be

applied in the future to add value to the business (Wiig 1997). Nonaka (1994) asserts that new knowledge is created through a continuous dialogue between tacit and explicit knowledge, i.e. businesses themselves cannot create new knowledge without individuals. The business provides the infrastructural support that facilitates the actions of creative individuals or provides the context for such individuals to create knowledge. It is argued that knowledge will be facilitated by the development of a culture based on appropriate incentives and management leadership (Marshall et al. 1996). Management has been observed to support creative cultures and climates by instilling appropriate values through the establishment of systems that support a diversity of beliefs, free exchange of information, open questioning (Nonaka 1988); collaborative interaction (Kimberly & Evanisko 1981); and in personally encouraging, assessing, developing, and supporting ideas, wherever in the business they originate (Mullin & Sutherland 1998). Von Krogh (1998) identifies a number of enabling conditions for the creation of knowledge. These include incentive schemes, training programmes, project debriefs and social events. In addition, staff must be able to experiment with new knowledge without fearing the consequences of failure (Nonaka 1988, Simonin 1997).

The creation of new organisational knowledge has been identified as providing the basis for organisational renewal and sustainable competitive advantage (Grant 1996, Inkpen 1996). In this context firms must create knowledge that can be used in the development of new products and services. Knowledge creation can be specified as consisting of five phases: (i) sharing of knowledge among team members; (ii) creation of new service concepts; (iii) justification of these concepts (e.g. via market research); (iv) building a prototype, and (v) leveraging the knowledge, concepts, prototypes (Nonaka & Takeuchi 1995, Von Krogh 1998). McKee (1992) notes that top management create the analytical environment in which innovations take place. This framework is built by: cultivating particular skills; encouraging an innovative mindset; and sponsoring on-going experiments and linkages among those experiments.

Lynn (1998) found that learning is critical to new product success and identifies three different forms of team learning: (i) within-team learning (e.g. exchange of knowledge amongst team members); (ii) cross-team learning (e.g. transfer of knowledge gained by one team to another team), and (iii) market-learning (e.g. knowledge gained from competitors, suppliers and customers). It was found that market learning is especially critical

when developing new products for new markets. Whereas, discontinuous innovation needs within-team learning but they should restrict cross-team communication, as they need to shed some of the organisational baggage that the company has previously acquired.

## 2.2. Knowledge Transfer

It is important to transfer knowledge between different members and areas of the organisation so that this knowledge can be fully exploited. While knowledge is recognisably created, codified and transferred during a NPD project, it has been observed that the experience and know-how that task group members acquire during the life cycle of one particular project can also be transferred to subsequent projects and programmes (Meyers & Wilemon 1989).

Knowledge can be transferred formally (e.g. via training) or informally (e.g. on-the-job learning). Face-to-face communication can transmit much "richer" information (e.g. facial clues, language variety, personalization) than more formal document based methods (Mohr & Nevin 1990). Knowledge transfer can be aided by the transfer of personnel, the use of multifunctional teams or the introduction of specialised knowledge intermediaries (Jordan & Jones 1997). Kahn (1996) distinguishes between interaction and collaboration. Interaction is defined as a transactional mechanism that encourages greater information flow, i.e. within the business, while collaboration is regarded as a philosophy of continuous relations, where there is an emphasis on the strategic alignment of departments through a shared vision, collective goals, and an accent on informal organising structures. High co-operation teams in NPD research have been found to place high importance on informal personal communication methods (Moenaert & Souder 1990). In general it is argued that internal communication is important for NSD as it reduces the amount of uncertainty surrounding the project with regard to user needs, the competition, technology and project requirements (Lievens, Moenaert & S'Jegers 1999).

Research from the NPD field has posited that high levels of knowledge dispersion (i.e. the sharing of knowledge throughout the organisation) can increase the effectiveness and efficiency of decision-making and implementation, and improve NPD financial performance (Moorman & Miner 1997). As dispersion levels increase, a NPD team's shared mental models become unified, cross-functional understanding and co-operation is enhanced, resulting in timely, cost-effective decisions

that improve the short-term financial performance of NPD activities (Day 1994, Griffin & Hauser 1993).

However, it has also been suggested that high levels of knowledge dispersion within a business can have a negative effect on innovation (March 1991, Quinn 1985). Organisational knowledge dispersion can inhibit innovation by reducing organisational heterogeneity, thus restricting the number of competencies available for generating new actions (Moorman & Miner 1997). Similarly, Leonard-Barton (1992) suggests that too much integration and coherence within NPD teams enhances conformity therefore hindering the flow of ideas and innovation. Lievens, deRuyter and Lemmink (1999) found too much co-operation and integration amongst team members can constrain the inflow of new knowledge and limit the search for knowledge outside the team. They argue that for NSD the biggest challenge for firms is the preservation of heterogeneity and diversity among individuals.

### 2.3. Knowledge Storage

Once knowledge has been created, to be of long-term value to the organisation it must be stored for subsequent use by people in different parts of the organisation. However, knowledge storage is more than simply codifying knowledge and storing in databases, documents and the like. It is the embodiment of tacit knowledge into processes, practices, materials and culture. The process of storing knowledge for subsequent use may be likened to a type of 'organisational memory' (Argyris & Schon 1978, Cyert & March 1963). Organisational memory becomes more powerful when it, and its context, are stored in a form that makes it easily retrievable by staff and management who have need of it. The most likely storage locations for organisational memory are posited to be individual memories, organisational culture, transformations (i.e. the guidelines by which work processes are managed), organisational structure and the physical structure of workplaces (Walsh & Ungson 1991). Four categories of a business' memory base have been identified: (i) brainware (knowledge in peoples' minds), (ii) hardware (e.g. prototypes, production processes, R&D equipment), (iii) groupware (knowledge shared by people e.g. rules of thumb, procedures), and (iv) documentware (paper-based or IT based information systems) (Kerssens-Van Dronghen et al. 1996). Once information has been codified and transposed from individual brains into documents or physical objects it can be diffused quite rapidly (Boisot 1995). However, in reducing complexity, some of the original value of the idea may be lost.

### 3. New Service Development Research

As a core capability, NSD has been subject to much research investigation during the 1990s. See Johnes and Storey (1998) for a comprehensive review of this literature. They summarise the research into companies that, on the whole, are successful at developing new services, thus:

*"The companies tend to have a commitment to product development, with a culture and systems that support innovation. For example, job descriptions and reward systems are linked to the NSD process; NSD programmes are more formalised, proactive and the whole process is better structured. One of the reasons for this is that they have higher quality and more experienced development staff. They have a clear strategy for new products and on the whole aim beyond short-term financial objectives. Such innovative companies concentrate on their existing strengths, have better market knowledge (keeping one eye on the market and one eye on the competition); fit new services with the current portfolio, and accept the limitations of available resources."* (Johnes & Storey 1998, p213)

One of the main conclusions to be drawn from studies into new services is the importance of the quality of the development process (e.g. Cooper et al. 1994, de Brentani 1991). This requires experienced staff, functional co-ordination, adequate resources and top management support (e.g. de Brentani 1993, Atuahene-Gima 1996, Edgett & Parkinson 1994). One of the main barriers to innovation in service firms has been found to be a lack of "knowledge" (Kelly & Storey 2000). A lack of expertise in the skills and processes required to undertake NSD restricts firms ability to exploit the opportunities open to them. de Brentani (1993) suggests that the primary factor in the development of successful new services is the creation of an innovative NSD environment where ideas and open communication are encouraged by supportive management.

This research seeks to build on the previous research into NSD performance by specifically looking at the processes by which NSD task knowledge is created, transferred and stored.

### 4. Conceptual Model

The aim of this research is to identify the underlying dimensions of KM, in the context of NSD task knowledge, and to understand the relationship between these dimensions and the success of NSD programmes (i.e. the

firm's NSD activities over a period of time). KM in this context is defined as comprising: (i) knowledge creation, (ii) knowledge transfer, and (iii) knowledge storage. In order to carry out NSD successfully firms must create knowledge that is relevant to NSD, transfer this knowledge throughout the organisation's members and departments, and store it in a form that makes it easily retrievable by staff and management who have need of it. Firms that engage in and encourage these activities would be expected to have developed a deep reservoir of knowledge about NSD and be better utilising this knowledge to create new services than those firms who do not. The underlying model of the research is shown in Figure 1.

**5. Research Method**

A questionnaire survey was designed to achieve these aims. The questionnaire contained 44 attributes relating to the conceptual model of KM (specifically related to NSD activities): knowledge creation (17 variables), knowledge transfer (18), and knowledge storage (9). These were developed from the KM and NPD/NSD literatures discussed earlier. These attributes were measured using 7-point Likert scales.

Research into new service success can either investigate the development of individual new services (i.e. the project level) or the development of new services over a period of time (i.e. the programme level). Since the aim of this research is to understand how knowledge is managed over time is it is more appropriate to use

programme success as the dependent variable. Respondents were asked to evaluate “the overall success of the business’ NSD programme in meeting its performance objectives” on a scale very unsuccessful (1) to very successful (7). Three other measures of performance were also employed: (i) the percent of sales from new products launched in the previous three years; (ii) the success rate of new products introduced, and (iii) a rating of the innovativeness of the NSD programme. These measures of performance have been used extensively in NPD/NSD research (Johnes & Storey 1998).

A sample of 385 UK-based service businesses was identified. These were the leading service companies from the financial services, travel/transportation, professional services, retail, telecommunications & computing, and media sectors. In each business the Marketing Director or the director in charge of NSD was identified and sent the questionnaire. A total of 115 completed questionnaires were returned which equated to a 30% response rate. No systematic differences were identified between early and late respondents or between sectors suggesting non-response bias is not a significant issue (Armstrong & Overton 1997)

**6. Results**

Exploratory factor analysis was used to explore the underlying dimensions of the independent variables i.e. the KM activities. Since one of the main goals of the research was to better understand the dimensions of KM

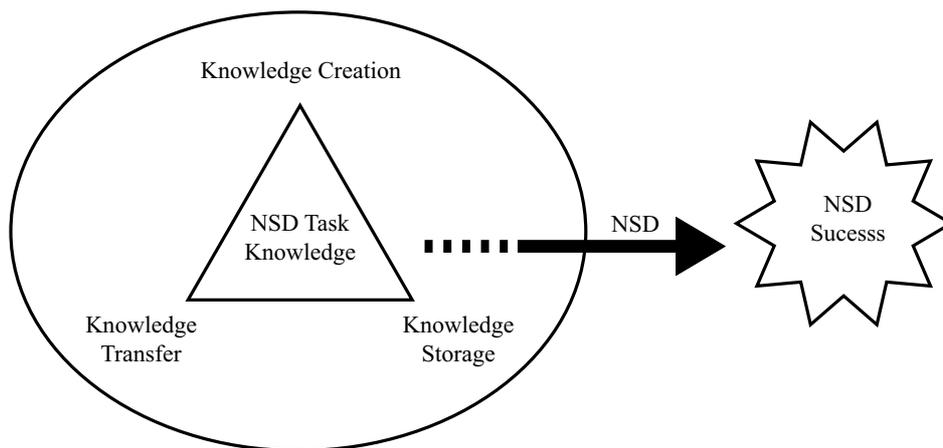


Figure 1: Knowledge management and new service development: Conceptual model

Table 1:  
Knowledge Creation: Factor Components

Factors <sup>1</sup>	Factor Loading <sup>2</sup>
<i>Learning Culture</i> ( $\alpha = 0.91$ ) <sup>3</sup>	
The basic values of the company include learning	0.85
Staff and management view the ability to learn is key to competitive advantage	0.80
Learning is seen as necessary for organisational survival	0.77
<i>Entrepreneurial Climate</i> ( $\alpha = 0.84$ )	
The head of the business is an entrepreneur, an innovator	0.77
The business is dynamic & entrepreneurial	0.66
The business is committed to innovation	0.46
Innovative ideas are often rewarded by management	0.42
<i>Organisational Creativity</i> ( $\alpha = 0.90$ )	
Managers encourage staff to experiment	0.70
Staff and management are encouraged to question the way NSD is carried out	0.68
Staff get recognised for contributing knowledge to the NSD process	0.64
Staff & managers involve themselves in charting future business direction	0.55
Innovative ideas are often rewarded by management	0.51
Staff question own beliefs about customers	0.44
Front-line staff encouraged to contribute NSD	0.44
<i>Shared Vision</i> ( $\alpha = 0.81$ )	
There is total agreement on the business vision	0.74
There is a commonality of purpose	0.53
Staff & managers involve themselves in charting future business direction	0.41

Notes:

<sup>1</sup>Factor analysis: principal components, oblique rotation, number of factors extracted based on eigenvalues > 1. Total variance explained is 71.4%. Three items were excluded from the factor analysis, as their item-total correlations were low.

<sup>2</sup>Only loadings greater than 0.4 are shown (Hair et al. 1998).

<sup>3</sup>Coefficient alpha.

oblique rather than orthogonal rotation was employed (Hair et al. 1998). Forty-one variables were included in the factor analysis, which found KM to comprise 11 underlying factors. Each factor's components are shown in Tables 1-3.

These factors were named and divided among the three parts of the conceptual model by inspection of the components of each factor. Only three variables were found to load on factors outside their original area of the model (i.e. a knowledge storage variable loading on a factor consisting of knowledge transfer variables). This gives support to the underlying model.

Pearson correlation coefficients were calculated to explore the strength of the relationship between KM and NSD success (see Table 4). These results are now discussed.

### *6.1. Knowledge Creation*

Knowledge creation in the context of NSD was found to be represented by four dimensions (Table 1): (i) learning culture, (ii) entrepreneurial climate, (iii) organisational creativity, and (iv) shared vision. All these factors were found to be correlated with overall NSD programme success. These factors show the need to create the right climate in the organisation in order to enable knowledge creation.

Learning culture illustrates the degree to which the staff and management in a service business recognise that learning constitutes a key value of the business, are in agreement that the ability to learn is key to competitive advantage, and understand that learning is key for guaranteeing organisational survival. Service businesses with a strong commitment towards fostering learning within the NSD programme are likely to achieve continuing high levels of NSD programme performance.

An entrepreneurial climate identifies the extent to which the head of the business is an entrepreneur, the business is dynamic and entrepreneurial, and the degree to which the business is held together by a commitment to innovation. Organisations who have an entrepreneurial climate often have a policy of rewarding innovative ideas. Service businesses scoring highly on the entrepreneurial climate dimension possess staff and management who perceive themselves to be operating in an environment where they are expected, and encouraged to, support and engage in innovative behaviour. There is a will to transform creative ideas into new services. Staff and management draw from an entrepreneurial climate to bring new ideas to fruition, i.e. to innovate. Therefore

it is not surprising that this factor is correlated with NSD performance.

Organisational creativity represents the characteristics of the service business, which support staff creativity. The creative climate dimension indicates that managers encourage staff to experiment in order to improve the NSD process, staff get recognised for contributing NSD knowledge and ideas to the NSD process, new staff and management are encouraged to question existing beliefs and knowledge, and innovative ideas are rewarded. Employees feeling part of the future of the organisation aid this creativity and contribution to innovation. Service businesses scoring highly on the organisational creativity dimension are likely to possess an internal organisational environment that is very supportive of generating new ideas for the improvement of NSD knowledge.

Shared vision identifies the extent to which there is total agreement on the business vision across all levels of the organisation and where there is a commonality of purpose in the business. If there is a strong consensus among organisational members regarding the mission of the business and how to achieve it one can regard the business as a 'tightly coupled' knowledge structure (Lyles & Schwenk 1992), i.e. there are low levels of variability in the goals pursued by staff and management. A high degree of collective agreement on a business' NSD strategy is likely to encourage NSD. However, it is important that the goal climate does not become so tightly coupled that it is difficult for the business to remain sensitive to changes that may take place outside of their jointly held assumptions, i.e. to prevent core knowledge sets become core rigidities (Leonard-Barton 1992).

### *6.2 Knowledge Transfer*

Knowledge transfer in this context is represented by four factors (Table 2): (i) collaborative working; (ii) rich communication; (iii) empowerment, and (iv) shared knowledge. These factors were again all found to be related to performance. To effectively transfer knowledge around the organisation people must view themselves as part of "the team". Interaction is the key to this.

Collaborative working reflects the extent to which staff and management in a service business work together during NSD projects, i.e. where organisational problems are solved by teams drawn across departments, where co-operation between departments is very high, and where there are high levels of communication in all directions. A service business scoring highly on collaborative working would be one characteristic of co-opera-

tion, not competition. In the context of NSD, the collaborative climate dimension would impact the extent to which departments were sensitive to the requirements of other departments when it came to executing the NSD process. Similarly, departments would be aware of the value of the knowledge contained in other departments and keen to leverage it at all opportunities. From another perspective, staff would share knowledge about the progress of NSD projects with management in a free and open fashion, and each would proactively seek to understand the impact that each other's knowledge had upon the performance of the project.

Rich communication attests to the extent to which the service business' staff and management adopt particular methods of personal interaction, e.g. scheduled face-to-face meetings, impromptu meetings, formal group meetings. Such personal interactions enable the transfer of 'rich information'. Rich communication also helps to encourage a spontaneous and relatively free format idea

exchange between people on the organisation. Staff and management involved in the development of successful NSD programmes may be more at ease with using these traditional methods of communication (i.e. one- to-one and face-to-face meetings). These methods have long been regarded as the most effective mechanism by which tacit knowledge is conveyed, without losing intended meaning. This finding obviously has implications for the management of virtual teams, or global development groups who rarely meet face to face, and for the development of technology-based knowledge management solutions.

Empowerment shows the extent to which the organisational culture allows staff to make decisions and take action quickly. With the pace of change in today's businesses staff must be able to react to changes by quickly forming teams to tackle problems without waiting for formal approval. Similarly, organisations that refer decisions up the organisational hierarchy are unlikely to be

Table 2:  
Knowledge Transfer: Factor Components

Factors	Factor Loading
<i>Collaborative Working</i> ( $\alpha = 0.82$ )	
Problems are solved by inter-departmental teams	0.80
Co-operation between departments is very high	0.73
There are high levels of communication between staff and management	0.57
<i>Rich Communication</i> ( $\alpha = 0.67$ )	
Scheduled face-to-face meetings are used extensively to discuss ideas	0.72
Formal group meetings are used extensively	0.62
Impromptu meetings occur frequently	0.55
<i>Empowerment</i> ( $\alpha = 0.62$ )	
Informally "problem-solving" groups are easily formed	0.71
New ideas for NSD improvement from staff are taken seriously	0.59
Even small decisions have to be referred up the organisation for decisions	(0.53) <sup>1</sup>
<i>Shared Knowledge</i> ( $\alpha = 0.73$ )	
There is consensus on NSD best practices	0.75
It is unlikely that a NSD mistake will be repeated	0.64
Staff are quick to transfer potentially useful NSD knowledge between projects	0.53
Staff spend time discussing NSD best practice	0.52
Staff are regularly transferred between NSD projects	0.49

Note: <sup>1</sup>Negative factor loading.

Table 3:  
Knowledge Storage: Factor Components

Factors	Factor Loading
<i>Knowledge Systems</i> ( $\alpha = 0.84$ )	
Intranets are used extensively for communication in NSD	0.88
Intranets are used to store NSD knowledge	0.82
Teleconferencing is used extensively for communication during NSD	0.75
GroupWare systems are used to store NSD knowledge	0.70
<i>Decision Systems</i> ( $\alpha = 0.75$ )	
Databases & record management systems are used to store NSD knowledge	0.78
Manuals and handbooks are used extensively in NSD	0.63
Expert systems are used extensively in NSD	0.51
Knowledge generally remains in the heads of individuals	(0.43) <sup>1</sup>
Formal procedures exist for documenting lessons from NSD projects	0.40
<i>Documentation</i> ( $\alpha = 0.82$ )	
Reports are used to document, store NSD knowledge	0.91
Memos are used extensively for communication in NSD	0.84

Note: <sup>1</sup>Negative factor loading.

very innovative. An informal working environment will also help encourage individuals to share knowledge and ideas with the organisation.

Shared knowledge reflects the service business' ability to regularly share insights on and agree the best methods of executing the activities comprising the NSD process and the extent to which useful NSD knowledge is transferred between projects to ensure mistakes are not repeated. A service business needs to distribute NSD knowledge widely to the different groups involved in executing the NSD process so that knowledge will carry maximum impact. One way of spreading learning and knowledge about NSD around the organisation is to regularly transfer staff between projects. For learning to be more than a single project affair, NSD knowledge must spread quickly and efficiently throughout the business. Some businesses have been observed to make knowledge-related employee behaviour a specific, and measurable, target of their projects. If such behaviour is to be promoted, service businesses must be encouraged to develop management and technical systems which enable staff to learn from others, from past failures and from other businesses, e.g. business tours, staff transfers, education and training.

### 6.3 Knowledge Storage

This research found that a business' NSD knowledge storage practices were represented by three factors (Table 3): (i) knowledge systems, (ii) decision systems and (iii) documentation. These factors were also found to be related to performance.

Knowledge systems show the extent to which service business have adopted new technologies for storing and sharing knowledge, e.g. Intranets and GroupWare. Such systems store NSD knowledge required to execute the activities of a NSD project in a form which assists staff and management working on parallel or subsequent NSD projects to retrieve it easily at a later stage.

Decision systems may be viewed as the holder of the organisation's memory with respect to NSD. As with knowledge systems, expert systems and databases help to make knowledge available for subsequent projects. Knowledge and expertise can also be captured and stored as NSD processes and routines in the form of NSD manuals. For such decision systems to remain effective there must be a commitment to update this memory at the end of each subsequent project.

Table 4:  
Knowledge Management and NSD Performance: A Correlation Analysis

Knowledge Management Dimension	Overall Success <sup>1</sup> (r)	Performance Dimensions		
		Innovative New Services <sup>2</sup> (r)	Sales from New Services <sup>3</sup> (r)	Success Rate <sup>4</sup> (r)
<i>Knowledge Creation</i>				
Learning culture	0.27***	0.21**	n.s.	0.17**
Entrepreneurial Climate	0.32***	0.28***	0.16*	0.15*
Organisational Creativity	0.26***	0.30***	0.22**	n.s.
Shared Vision	0.33***	0.22***	0.15*	n.s.
<i>Knowledge Transfer</i>				
Collaborative Working	0.30***	0.36***	0.30***	n.s.
Rich Communication	0.25***	0.20**	0.27***	n.s.
Empowerment	0.32***	0.26***	0.32***	n.s.
Shared Knowledge	0.30***	n.s.	0.18**	0.45***
<i>Knowledge Storage</i>				
Knowledge Systems	0.28***	0.27***	n.s.	n.s.
Decision Systems	0.23***	n.s.	0.20**	n.s.
Documentation	0.19**	n.s.	n.s.	n.s.
***. Correlation is significant at the 1% level; *. Sig. at the 10% level;		**. Sig. at the 5% level; n.s. Not significant.		

Notes:

<sup>1</sup>Overall success of NSD programme in meeting performance objectives (7-point scale).

<sup>2</sup>Success of NSD programme in developing innovative new services (7-point scale).

<sup>3</sup>Percent of total sales from new services introduced in last 3 years.

<sup>4</sup>Percent of new services launched that succeeded.

Documentation assesses the extent to which the service business' staff and management adopt more traditional methods of storing NSD task knowledge, e.g. documents, reports. The implication being that the achievement of the business' objectives for the NSD programme is not furthered solely by technology-assisted NSD knowledge storage. More basic storage mechanisms also need to be in place.

#### 6.4 Impact on Performance

To further investigate the relationship between KM and NSD performance, correlation coefficients were also calculated between the KM factors and the three other performance measures (Table 4). The relationship between innovative new services and the 11 KM factors are similar to the results for overall success. The results are insightful in that they indicate that innovativeness is likely to be under the influence of management action. Collaborative working is the most important factor for developing innovative new services. Collaboration between different departments and different people in the organisation enables new and original thinking to be brought to particular problems. This facilitates more innovative and creative outcomes. Not surprisingly organisational creativity and an entrepreneurial climate are necessary for innovation. These measure the extent to which motivation and commitment exists to transform creative ideas into new services, i.e. to innovate.

Knowledge transfer heavily affects sales from new services. Organisations that are undergoing significant growth driven by new services need to remain flexible to maintain this drive, i.e. empowerment, collaborative working, rich communication. In such organisations storing knowledge is less important than sharing it around the firm to allow people to take decisions quickly. This requires extensive personal interaction and collaboration.

A firm's success rate in developing new services is influenced by shared knowledge and to a lesser extent a learning culture and an entrepreneurial climate. To reduce the number of failures organisations must learn from past mistakes. It is crucial that errors, omissions, etc. are not repeated ad-nauseam. It is suggested that the knowledge of why a new product failed may result in the development of important organisational, technical and market knowledge that can be used in subsequent developments (Maidique & Zirger 1985).

#### 7. Conclusions

This paper has explored the underlying dimensions of

KM activities, in relation to NSD task knowledge. The KM activities of firms can be classified in terms of knowledge creation, knowledge transfer and knowledge storage. Within these three areas KM was found to comprise 11 factors. All aspects of KM were found to have a significant impact on the success of service business' NSD activities.

While service businesses may be aware of the importance of knowledge assets to their business, few have yet to embrace a business-wide framework for managing particular knowledge assets. Understanding the characteristics of the factors comprising KM should enable management in service businesses to plan their KM activities more effectively and to focus on those areas of the business where they are currently deficient.

Service businesses are heavily dependent upon the knowledge and ideas of their staff and it is therefore in businesses' best interest to strive to establish appropriate cultures, structures, incentives, systems, and processes that somehow allow knowledge creation, transfer and storage to happen as part of daily business. This should go some way towards creating an organisation responsive to change and supportive of new product initiatives, and to achieve a long-term competitive advantage.

Further research is needed in a number of areas. First the interrelationship between the different aspects of KM has not been discussed. For example, to what extent does knowledge storage aid knowledge transfer and whether knowledge storage helps or hinders knowledge creation are two questions that need addressing. Whilst the focus of this study was the service sector it would be expected that similar results would be found in the product sector. However further research is needed to confirm this. Finally longitudinal research is needed to explore the impact of KM over time. Potentially KM activities could have an even bigger impact in the long-run by helping organisations avoid repeating mistakes or the need to continuously reinvent the wheel and by creating an environment of continuous improvement.

#### References

- Argyris, C., Schon, D., 1978. *Organisational Learning: A Theory of Action Perspective*, Addison-Wesley, Reading, M.A.
- Armstrong, J.S., Overton, T.S., 1977. Estimating Nonresponse Bias in Mail Surveys. *Journal of Marketing Research*, 14 (3), 396-410.
- Atuahene-Gima, K., 1996. Differential Potency of

- Factors Affecting Innovation Performance in Manufacturing and Services Firms in Australia. *Journal of Product Innovation Management*, 13, 35-52.
- Boisot, M.H., 1995. Is Your Firm a Creative Destroyer? Competitive Learning and Knowledge Flows in the Technological Strategies of Firms, *Research Policy*, 24, 489-506.
- Chew, W.B., Leonard-Barton, D., Bohn, R.E., 1991. Beating Murphy's Law, *Sloan Management Review*, Spring, 5-16.
- Cooper, R.G., Easingwood, C.J., Edgett, S., Kleinschmidt, E.J., Storey, C., 1994. What Distinguishes the Top Performing New Products in Financial Services? *Journal of Product Innovation Management*, 11 (4), 281-299.
- Cyert, R.M., March, J.G., 1963. *A Behavioural Theory of the Firm*. Englewood-Cliffs, N.J.: Prentice-Hall.
- Day, G.S., 1994. Continuous Learning About Markets, *California Management Review*, 36 (Summer), 9-31.
- de Brentani, U., 1991. Success Factors in New Developing New Business Services. *European Journal of Marketing*, 25 (2), 33-59.
- de Brentani, U., 1993. The New Product Process in Financial Services: Strategy for Success. *International Journal of Bank Marketing*, 11 (3), 15-23.
- Edgett, S., Parkinson, S., 1994. The Development of New Financial Services: Identifying Determinants of Success & Failure. *International Journal of Service Industry Management*, 5 (4), 24-38.
- Garvin, D.A., 1993. Building a Learning Organisation. *Harvard Business Review*, July-August, 78 - 91.
- Grant, R.M., 1996. Toward a Knowledge-Based Theory of the Firm. *Strategic Management Journal*, Winter Special, 17, 109-122.
- Griffin, A., Hauser, J.R., 1993. The Voice of the Customer. *Marketing Science*, 12 (1), 1-27.
- Hair J, Anderson R, Tatham R., Black W., 1998. *Multivariate Data Analysis*. Prentice-Hall, New Jersey.
- Inkpen A., 1996. Creating Knowledge through Collaboration, *California Management Review*, 39 (1), 123-140.
- Johne A., Storey C., 1998. New Service Development: A Review of the Literature & Annotated Bibliography, *European Journal of Marketing*, 32 (3), 184-251.
- Jordon, J., Jones, P., 1997. Assessing Your Company's Knowledge Management Style. *Long Range Planning*, 30 (3), 392-398.
- Kahn, K.B., 1996. Interdepartmental Integration: A Definition with Implications for Product Development Performance, *Journal of Product Innovation Management*, 13 (2), 137-151.
- Kelly, D., Storey, C., 2000. New Service Development: Initiation Strategies. *International Journal of Service Industry Management*, 11 (1), 45-62,
- Kerssens-Van Drongelen, I.C., de Weerd-Nederhof P.C., Fischer, O.A.M., 1996. Describing the Issues of Knowledge Management in R&D, *R&D Management*, 26 (3), 213-230.
- Kimberly, J.R., Evanisko, M.J., 1981. Organisational Innovation – The Influence of Individual, Organisational, and Contextual Factors on Hospital Adoption of Technological and Administrative Innovations, *Academy of Management Journal*, 24 (4), 689-713.
- Leonard-Barton, D., 1992. Core Capabilities and Core Rigidities: A Paradox in Managing New Product Development, *Strategic Management Journal*, 13, 111-125.
- Lievens, A., deRuyter, K., Lemmink, J., 1999. Learning During New Banking Service Development, *Journal of Service Research*, 2 (2), 145-163.
- Lievens, A., Moenaert, R.K., S'Jegers, R., 1999. Linking Communication to Innovation Success in the Financial Service Industry, *International Journal of Service Industry Management*, 10 (1), 23-47.
- Lyles, M.A., Schwenk, C.R., 1992. Top Management, Strategy and Organisational Knowledge Structures *Journal of Management Studies*, 29, 155-174.
- Lynn, G.S., 1998. New Product Team Learning: Developing and Profiting from Your Knowledge Capital, *California Management Review*, 40 (4), 74-96.
- Maidique, M.A., Zirger B.J., 1985. The New Product Learning Cycle, *Research Policy*, Dec, 299-313.
- March, J.G., 1991. Exploration and Exploitation in Organisational Learning, *Organisational Science*, 2 (1), 71-87.
- Marshall, C., Prusak L., Shpilberg, D., 1996. Financial Risk and the Need for Superior Knowledge Management *California Management Review*, 38 (3), 77-101.
- Meyers, P.W., Wilemon, D., 1989. Learning in New Product Development Teams, *Journal of Product Innovation Management*, 6: 79-88.
- McKee, D., 1992. An Organisational Learning Approach

to Product Innovation, *Journal of Product Innovation*, 9, 232-245.

Moenaert, K., Souder, W.E., 1990. An Information Transfer Model for Integrating Marketing and R&D Personnel in NPD Projects, *Journal of Product Innovation Management*, 7 (2), 91-107.

Mohr, J., Nevin, J., 1990. Communication Strategy in Multi-Channels: A Theoretical Perspective, *Journal of Marketing*, 50 (Oct), 36-51.

Moorman, C., Miner, S.A., 1997. The Impact of Organisational Memory on New Product Performance and Creativity, *Journal of Marketing Research*, XXXIV (Feb). 91-106.

Mullins, J.W., Sutherland, D.J., 1998. New Product Development in Rapidly Changing Markets: An Exploratory Study, *Journal of Product Innovation Management*, 15, 224-236.

Nonaka, I., 1988. Creating Organisational Order Out of Chaos: Self-Renewal in Japanese Firms, *Californian Management Review*, 30 (3), 57-73.

Nonaka, I., 1994. A Dynamic Theory of Organisational Knowledge Creation, *Organisation Science*, 5 (1), 14-37.

Nonaka, I., Takeuchi, H., 1995. *The Knowledge-Creating Company*, Oxford University Press.

Quinn, J. B., 1985. Managing Innovation: Controlled Chaos, *Harvard Business Review*, 53 (May), 73-84.

Simonin, B., 1997. The Importance of Collaborative Know-How, *Academy of Management Journal*, 40 (5), 1150 - 1174.

Von Krogh, G., 1998. Care in Knowledge Creation, *California Management Review*, 40 (3), 133-153.

Walsh, J., Ungson, G., 1991. Organisational Memory, *Academy of Management Review*, 16, 57-91.

Wiig, K.M., 1997. Integrating Intellectual Capital and Knowledge Management, *Long Range Planning*, 30 (3), 399-405.

### **Biographies**

**Chris Storey**, Reader, City University Business School, BCom (Birmingham), MSc (Warwick), PhD (Manchester). Building on his experience in marketing financial services at Barclays Bank, Chris Storey investigated the development of new services for his doctorate. He was a lecturer in Marketing at King's College, London, before he joined City University Business School. He has published articles in a number of leading journals including the *Journal of Product Innovation Management*, *Journal of Business Research*, *European Journal of Marketing* and *Long Range Planning*. His main areas of interest are innovation as a source of competitive advantage in service industries, new distribution channels in services, marketing of financial, professional and other services. Recent work has looked at how companies develop their e-commerce operations.

**David Kelly**, Chief Operating Officer, Lastminute.com, BA (Leicester), MBA (City), PhD (City). David Kelly is currently Chief Operating Officer at Lastminute.com one of the UK's leading internet start-ups and a Visiting Research Fellow at City University. Previously he was Director of Customer Service for Amazon.co.uk. He has published articles in the *International Journal of Service Industry Management* and the *Service Industries Journal*. His research interests centre on knowledge management practices and new service development strategies.

### **Correspondence Addresses**

Dr Chris Storey, City University Business School, Frobisher Crescent, Barbican Centre, London EC2Y 8HB. Telephone: +44 (0)20 7040 8728; Facsimile: +44 (0)20 7040 8546, e-mail: c.d.storey@city.ac.uk.



**ANNUAL SUBSCRIPTION FORM/TAX INVOICE**

ABN 57 195 873 179

This form becomes a TAX INVOICE on payment

Contact Title (Prof, Dr, Mr, Ms):.....

Contact Name: .....

Contact Position: .....

Department or Library: .....

Organisation or Institution:.....

.....

Full Postal Address:.....

.....

Country:..... International Codes:.....

Telephone No: ..... Facsimile No: .....

e-mail: .....

Please complete the appropriate boxes below. Subscriptions should be accompanied by a cheque or money order made payable to School of Marketing, University of New South Wales.

Subscription	Cost per copy per year including GST	Number of Copies Required	Total Cost
Individual in Australia	Aus\$55		
Institution in Australia	Aus\$110		
Individual Overseas	Aus \$70 (GST Free)		
Institution Overseas	Aus\$120 (GST Free)		

The *amj* is published twice yearly. Please return this form, together with your cheque or money order to:

Mrs. Nadia Withers  
*amj*  
 School of Marketing  
 University of New South Wales  
 UNSW Sydney NSW 2052  
 AUSTRALIA

---

## Notes for Contributors

---

### Editorial Objectives

The *Australasian Marketing Journal* is an academic journal written for both scholars and practitioners. The objective of the *amj* is to publish articles that enrich the practice of marketing while simultaneously contributing to the advancement of the discipline. Therefore, manuscripts accepted for publication must be conceptually and theoretically sound, offer significant research findings and insights, and also suggest meaningful implications and recommendations for practitioners. Given *amj*'s diverse readership, preference is given to manuscripts that are generalisable across industries, nations and economies. Further, if the manuscript reports the findings of original research, the methodology and findings not only should be scientifically defensible but presented in a manner that readers with limited backgrounds in research methods and statistical analyses are not discouraged from reading the article.

Further explanation of the Editorial objectives is to be found on pages 5-6 of volume 9, Number 1, 2001 and also on the journal web-site ([www.marketing.unsw.edu.au/amj](http://www.marketing.unsw.edu.au/amj))

### General Principles

- It is our intention to publish well-written, readable articles with broad appeal and of international relevance.
- Contributors are encouraged to focus on either conceptual or empirical work and to outline practical implications for marketing. Topics should always relate to some aspect of marketing.
- New and first-time authors are particularly encouraged.
- At *amj* we are keen to publish more good papers which emanate from the Asia-Pacific region, or focus on the region in a global context.

### Editorial Scope

It should be noted that research is not the only basis for an acceptable article. Case analyses, creative concepts and applications, book reviews, commentaries and other thought-provoking manuscripts will be considered. Particularly welcome are future-oriented manuscripts that offer visions of marketing in the twenty-first century and practical road maps for getting there.

### The Review Process

Each paper is reviewed by the editor and, if it is judged as potentially suitable for this publication, it is then sent to two

or three referees for double-blind peer-review. Based on their recommendations, the editor then decides whether the paper should be accepted as is, revised or rejected.

### Copyright

Articles submitted to the journal should be original contributions and should not be under consideration for any other publication at the same time. Authors submitting articles for publication warrant that the work is not an infringement of any existing **copyright** and will indemnify the publisher against any breach of such warranty. For ease of dissemination and to ensure proper policing of use, papers and contributions become the legal copyright of the publisher unless otherwise agreed. This extends to both hardcopy and electronic versions of the *amj*.

### Indexing

*amj* is indexed by: Public Affairs Information Service; ANBAR and Emerald Review.

### Manuscript Requirements

Three copies of the manuscript should be submitted in double or one-and-half line spacing with wide margins and numbered pages. **All authors** should be listed, with author details printed on a separate sheet. Authors should not be identified anywhere else in the article.

### Formatting of Manuscripts

*amj* has adopted the format of the *International Journal of Research in Marketing* (IJRM). As a guide, articles should be between 3,000 and 6,000 words in **length**. A title of not more than eight words should be provided. A brief **autobiographical note** should be supplied including full name, affiliation, e-mail address and full international contact details. Authors must supply an **abstract** of 100-150 words. Up to six keywords should be included which capture the principal topics covered by the article.

Where there is **methodology**, it should be clearly described under a separate heading. **Headings and sub-headings** must be short, clearly defined and numbered. **Endnotes** should be used **only if** absolutely **necessary** and must be identified in the text by consecutive numbers, enclosed in square brackets and listed at the end of the article.

**Figures, charts and diagrams** should be kept to a minimum. They must be black and white with minimum shading and

numbered consecutively, using Arabic numbers with a brief title and labelled axes. In the text, the position of the figure should be shown by typing on a separate line the words “*take in Figure 2*”. Good quality originals must be provided. Particular attention should be paid to the legibility and clarity of figures, charts and diagrams.

**Tables** must be numbered consecutively with roman numerals and a brief title. In the text, the position of the table should be shown by typing on a separate line the words “*take in Table 4*”. Tables should be carefully designed to communicate a clear and simple message. Numbers should be rounded to two significant figures.

**Photos and illustrations** must be supplied as good quality black and white original half tones with captions. Their position should be shown in the text by typing on a separate line the words “*take in Plate 2*”.

**References** to other publications must be in *International Journal of Research in Marketing* (IJRM) style, as follows: “*Smith (1992) reported that ...*” or “*This problem has been studied previously (e.g. Smith et al., 1979)*”. The author should make sure that there is a strict one-to-one correspondence between the names and years in the text and those on the list. The list of references should appear at the end of the main text (after any appendices, but before tables and legends for figures). It should be double or one-and-half spaced and listed in alphabetical order by author’s name.

*References should appear as follows:*

**For books:** Kotler, P., Ang, S.H., Leong, S.M., Tan, C.T., 1996. *Marketing Management: An Asian Perspective*, Prentice-Hall, Singapore.

**For articles in collected volumes:** Douglas, S.P., Morrin, M.A., Craig, C.S., 1994. *Cross-national consumer research*

*traditions*. In: Laurent, G., Lilien, G.L., Pras, B. (Eds.), *Research Traditions in Marketing*. Kluwer Academic Publishers, Boston, MA, pp. 289-306.

**For articles in journals:** Brodie, R.J., Danaher, P.J., 2000. Building models for marketing decisions: Improving empirical procedures. *International Journal of Research in Marketing* 17 (2-3), 135-139.

**Note that journal titles should not be abbreviated.**

#### **Final Submission of the Article**

Once accepted for publication, the final version of the manuscript must be provided, accompanied by a 3.5” disk of the same version labelled with: disk format; author name(s); title of article; journal title; file name.

Alternatively, an e-mailed copy is acceptable. Author/s should also supply a short biography and <sup>3</sup>/<sub>4</sub> page executive summary outlining the implications for practitioners and/or public policy makers. This should not simply replicate the abstract. Implications should directly follow from the research and not be purely speculative.

The manuscript will be considered to be the definitive version of the article. The author must ensure that it is complete, grammatically correct and without spelling or typographical errors, and with a correct record of references.

In preparing the disk or e-mailed copy, please use Microsoft Word format. Page set-up should be in “A4” standard (not “Letter”). All tables must be inserted in “true” Microsoft Word format. No heading styles should be used. Figures provided electronically must be in tif, gif or pic file extensions. All figures and graphics must also be supplied as good quality originals.

Each article must be accompanied by a completed and signed **Journal Article Record Form**.

#### **Submission requirements**

Manuscript must be clean, good quality, hard copy and in triplicate.

- Include an abstract and keywords; brief biography of authors and a separate <sup>3</sup>/<sub>4</sub> page executive summary.
- Follow *International Journal of Research in Marketing* style, reference & format guidelines.
- Include any figures, photos and graphics as good quality originals.

Submissions should be sent to:

#### **The Editor**

Professor Paul Patterson or Professor Mark Uncles  
School of Marketing, University of New South Wales  
UNSW SYDNEY NSW 2052  
AUSTRALIA

