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The service concept: the missing link in service design research?

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Abstract

The service concept plays a key role in service design and development. But while the term is used frequently in the service design and new service development literature, surprisingly little has been written about the service concept itself and its important role in service design and development. The service concept defines the *how* and the *what* of service design, and helps mediate between customer needs and an organization's strategic intent. We define the service concept and describe how it can be used to enhance a variety of service design processes. As illustrations here, we apply the service concept to service design planning and service recovery design processes. Employing the service concept as an important driver of service design decisions raises a number of interesting questions for research which are discussed here. © 2002 Elsevier Science B.V. All rights reserved.

Keywords: Service concept; Service design planning; Service recovery design

1. Introduction

A service organization can only deliver a service after integrating (or outsourcing) investments in numerous assets, processes, people, and materials. Much like manufacturing a product composed of hundreds or thousands of components, services similarly consist of hundreds or thousands of components. However, unlike a product, service components are often not physical entities, but rather are a combination of processes, people skills, and materials that must be appropriately integrated to result in the 'planned' or 'designed' service.

In designing a new service or redesigning an existing service, managers and designers must make decisions about each component of the service, from major decisions like facility location to seemingly minor decisions like napkin color. For even a relatively simple service, numerous decisions are made in taking a new or redesigned service from the idea stage through the design phases to a deliverable service. And in many cases, these processes are ongoing as service organizations continue to invest in their physical assets and the training of their workforce, as well as make changes and improvements in front room service encounter processes and back room service support processes. The large number and wide variety of decisions required to design and deliver a service are made at several levels in the organization—from the strategic level to the operational and service encounter levels. A major challenge for service organizations is ensuring that decisions at each of these levels are made consistently, focused on delivering the correct service to targeted customers.

From the service organization's perspective, designing a service means defining an appropriate mix of

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physical and non-physical components. But do customers define a service as a sum of components? Or do customers define a service as a singular outcome they are seeking when they obtain or purchase the service? Similarly, how do service providers (i.e. service employees) define the service they deliver—as an integration of service components or as one package?

Regardless of how the service organization defines their service and how customers perceive the service, a delivered service should function seamlessly for customers to perceive it correctly (i.e. as designed). Customers have a preconceived notion of what a service is, even if they have not experienced it previously (Johnston and Clark, 2001). In other words, customers have an image of the service concept regardless of whether it has been defined by word-of-mouth or other sources of information or from real service experiences.

Before, during, and after service delivery, service organizations set customer expectations. These expectations relate to the nature of the service package, as well as to the nature, duration, and customer flexibility during the service encounter. To ensure that the service package and service encounter fit the needs of the customer and the service organization itself, organizations must focus on the design and delivery of their service concept.

In this paper, we propose that the service concept can be the key driver of service design decisions at all levels of planning. We provide three levels of discussion in relation to the service concept. First, we define the service concept and how it drives design decisions for new and redesigned services. An organization's definition of its service concept is necessary at the strategic level of planning. Second, we describe how the service concept is useful at the operational level during service design planning, particularly in integrating service strategy into the service delivery system and in determining appropriate performance measures for evaluating service design. Third, service recovery, one component of service design, is used to show the usefulness of applying the service concept in designing and enhancing service encounter interactions.

At each of these three levels—the service concept, service design planning, and service recovery—we discuss the existing literature in terms of what has been studied and what deficiencies remain. Also, at each level, we provide useful research questions that introduce future research ideas for progressing in studying the service concept and its related components. First, we discuss the positioning of the service concept within the service literature.

1.1. New service development, service design and service innovation

There are several terms used in the literature addressing related ideas about how service organizations design new service offerings from either the customer's viewpoint or the delivery organization's viewpoint. The most recent of the terms is new service development (NSD) and there appears to be some degree of agreement about its meaning. NSD is the "overall process of developing new service offerings" (Johnson et al., 2000) and is concerned with the complete set of stages from idea to launch (Cooper et al., 1994). This view is shared by other writers including Edvardsson et al. (2000), who extend the scope of NSD to encompass strategy, culture, and service policy deployment and implementation.

The term service design has been more narrowly defined, notably by Gummesson (1991), as "the concretization of the service concept in drawings, flowcharts ...". Norling et al. (1992) define it as the work of specifying an idea about a new service in drawings and specifications. Others have used the term service design to cover the whole process from idea to specification (see, for example, Zeithaml et al., 1990; Martin and Horne, 1993). Service innovation has also been defined in a number of ways from a narrow view of being concerned with the "idea generation" portion of the NSD process (Edvardsson et al., 2000) to the whole process of service development (Sundbo, 1998).

One feature common to most of the research on NSD, service design, and service innovation is the service concept. The service concept, which is described in detail in the following section, is a core element of processes for service design, development, and innovation (see, for example, Scheuing and Johnson, 1989; Tax and Stuart, 1997). Indeed, one of the most recent models outlining the NSD process cycle (Johnson et al., 2000) puts concept development and testing at the heart of service design. Most authors refer to the service concept as a central component in designing

services (see, for example, Norling et al., 1992) and as a key stage in the process of NSD (see, for example, Johnson et al., 2000). However, until now, much of the related research has focused on other aspects of design and development, such as:

- the process of service design and NSD (e.g. Donnelly et al., 1985; Scheuing and Johnson, 1989; Bowers, 1989; Johnson et al., 2000);
- dynamics of innovation (Johnson et al., 2000);
- process of innovation (Sundbo, 1998; Edvardsson et al., 2000);
- types of new services and service innovation (Lovelock, 1984);
- design of the service encounter (Gupta and Vajic, 2000; Tansik and Smith, 2000);
- process versus service product innovation (Boone, 2000);
- capacity design (Pullman et al., 2000);
- innovation methodologies (Behara, 2000; Edvardsson et al., 2000);
- success and failure in service design (de Brentani, 1989, 1995; Martin and Horne, 1993; Edgett and Parkinson, 1994) and
- measurement of service design and innovation (Voss et al., 1992).

We propose that it is critical to clearly define the service concept before and during the design and development of services. The service concept then serves as a driver of the many decisions made during the design of service delivery systems and service encounters.

2. The service concept

The service concept is a frequently used term in the service design and NSD literature, and indeed much of the above work recognizes, explicitly or implicitly, the importance of the service concept. However, surprisingly little has been written about this central issue in service design and development. Most work to date has been concerned with its definition.

The service concept has been defined in many different ways. Heskett (1986) defines it as the way in which the "organization would like to have its services perceived by its customers, employees, shareholders and lenders", i.e. the organization's business proposition. It has also been defined as the elements of the service package, or what Collier (1994) calls the "customer benefit package", i.e. the things that provide benefit and value to the customer. This approach of defining the nature of a service in terms of its constituent parts has also appeared in the marketing literature. Lovelock and Wright (1999), for example, use the "8Ps" of marketing which encompass the elements of the service product, process, place, physical evidence, people, productivity and quality, plus additional marketing elements, price and promotion. The "8Ps" is based on the "7Ps" by Booms and Bitner (1981) which was developed from the "4Ps" by McCarthy (1960).

Edvardsson and Olsson (1996) refer to the service concept as the prototype for service and define it as the "detailed description of *what* is to be done for the customer (what needs and wishes are to be satisfied) and *how* this is to be achieved". They stress service concept development as a critical stage in service design and development. This involves understanding the needs of customers in the target market (which they call the "service logic") and aligning this with the organization's strategy and competitive intentions. This *what* and *how* approach is also used by Lovelock et al. (1999) who separate the "service marketing concept" as the benefits to the customer (i.e. the *what*) and the "service operations concept" as the specification of *how* the service will be delivered. Other writers (such as Dibb et al., 1997) use the notion of the "marketing concept" as an attempt to encourage organizations to understand and then satisfy customers' needs and fulfill the objectives of the organization. The service concept is at the inseparable crossroad of service marketing and service operations that exists for most service organizations.

Edvardsson et al. (2000) define the service concept as a detailed description of the customer needs to be satisfied, how they are to be satisfied, what is to be done for the customer, and how this is to be achieved. Clark et al. (2000), and Johnston and Clark (2001) further define the service concept as:

1. service operation: the way in which the service is delivered;
2. service experience: the customer's direct experience of the service;
3. service outcome: the benefits and results of the service for the customer and
4. value of the service: the benefits the customer

perceives as inherent in the service weighed against the cost of the service.

The four dimensions defined above encompass the domain of the service concept definition that we use throughout this paper.

Deconstructing a service into the *what* and the *how* or into its components allows designers to identify the various elements of a service concept, check them against customers' needs, and then design and deliver those elements. However this 'bits and pieces' approach belies the complexity of many services and also ignores the fact that a service may be seen by its customers (and designers?) as a 'whole experience'. For example, "a day out at Disney's magic kingdom is more likely to be defined by its designers and its visitors as a magical experience rather than six rides and a burger in a clean park" (Clark et al., 2000, p. 72).

Clark et al. (2000) envisage the service concept as a mental picture, i.e. "service in the mind", held by not only customers but employees and designers as well. Clark et al. stress the need for alignment among these stakeholders in order to create a service concept that is understood by the organization and shared with employees and customers to minimize a gap between expectations and service delivery.

2.1. The missing link?

The service concept clearly has a key role to play in service design and development, not only as a core element of the design process but as a means of "concretizing" the nature of the service. The service concept not only defines the *how* and the *what* of service design, but also ensures integration between the *how* and the *what*. Furthermore, the service concept can also help mediate between customer needs and the organization's strategic intent. One reason for poorly perceived service is the mismatch between what the organization intends to provide (its strategic intent) and what its customers may require or expect (customer needs). While this gap may be the result of inappropriate marketing, or poorly specified or delivered service (see, for example, Johnston and Clark, 2001; Parasuraman et al., 1985), it can be avoided at the design stage by ensuring that the design intent is focused on satisfying targeted customer needs (see Fig. 1 for a model of the basic structure of the service concept).

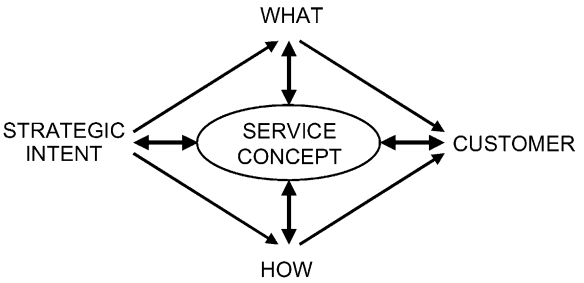

Fig. 1. The missing link in service design research?

The notion of employing the service concept as an important driver of service design decisions raises a number of questions for research.

- Do customers buy a 'concept' or 'specifications', i.e. do they consume bits and pieces of a service or do they have a single mental picture of what the service is?
- If customers buy the mental picture, how should organizations organize themselves to deliver such a mental picture rather than the bits and pieces, i.e. how does the service organization focus on the whole service experience?
- How can the service concept be used to create organizational alignment, not only overcoming conflicts between the *how* and the *what*, but also linking the needs of customers and the design of the service with the strategic intentions of the organization?
- Can the service concept be used to define the differences between design and capability, and then help designers and operations managers identify and deal with the consequences of change, such as re-configuring their operational resources?
- If the service concept is central to service design planning, how can it be used to develop and assess a service? Can the concept be used to drive strategic advantage?
- How can the service concept be used to design the components of service encounters (e.g. service recovery processes)?

The remainder of the paper focuses on the last two questions above. In the following section, we review the current knowledge on service design planning and describe how the service concept is useful for focusing decision-making during the planning process. Additionally, we discuss how the service concept helps

service organizations determine the correct performance measures for their delivery systems. In Section 4, we discuss a more specific issue related to designing the service encounter—that of the designed service recovery process. Again, we review the current literature and discuss the usefulness of the service concept in the design of a specific process—the service recovery.

3. The service concept as a driver of design planning

Without a clear and shared understanding of the nature of the service to be provided, i.e. the service concept, how can managers expect to design a successful service? It is analogous to asking three car designers to work together to create a new car when each of them has a different 'car in the mind', perhaps a Cadillac, a Chevy Suburban, and a Honda Civic. Designers and managers must first establish a shared vision and definition of the service concept before design processes can begin. Service design planning is the first step in the process of service concept execution.

Following an extensive literature survey, Tax and Stuart (1997) voice concern over the scant attention service design has received in the service literature. The extant service literature has focused heavily on service process mapping, customer interaction management, failure prevention and service recovery. Specifically, Tax and Stuart call for the use of case studies to gain insight into design challenges and to develop frameworks for organizing and assessing service design.

Two major deficiencies in the service design literature remain. One is in linking business strategy and service design, i.e. 'service design planning'. The second is the lack of consideration for measuring the financial performance of a service design. Using the service concept as the driver of the design planning process will help to address these two deficiencies.

3.1. Present status of service design planning research

Heskett (1987) and Chase and Bowen (1991) suggest the design of a service delivery system should encompass the roles of the people (service providers), technology, physical facilities, equipment, and the specific processes by which the service is created and delivered. A similar view is taken by Ballantyne et al. (1995) who identify four diagnostic levels for service system design: (1) physical setting; (2) process design; (3) job design and (4) people, in order to "design quality in" to service delivery systems. Process design, as described by Heskett (1987), Chase and Bowen (1991), and Ballantyne et al. (1995), corresponds to the use of flow-charting techniques, sometimes called blueprinting (Shostack, 1987) or service mapping (Kingman-Brundage, 1992). Ballantyne et al.'s job design draws on classical socio-technical job design approaches that focus on motivational outcomes (Hackman and Oldham, 1980) and then analyze and modify the service system design based on those outcomes. The people issues described by Heskett (1987), Chase and Bowen (1991), and Ballantyne et al. (1995) encompass staff selection, training, communications and support.

Similarly, Georgantzas and Madu (1994) adapt Chase and Acquilano (1989) service-system design matrix and incorporate design variables, such as innovations (teams, self-serve, automation), operational focus (client mix, flow, capacity, demand management) and worker requirements (skills). The premise of their model is that the extent of contact the customer has with the service delivery system determines the specifications for its design. The model includes dimensions of customization, efficiency, personalization, standardization, variety, and the opportunities for cross selling.

3.2. Limitations of existing studies

While the current literature adequately addresses operational and tactical issues, there are two shortcomings in the existing frameworks and models. First, they fail to bring strategic service issues (market positioning and the type of customer relationship) into service design. Second, the existing models do not incorporate into the design process the use of financial performance measures to evaluate the output of the service system being designed.

Sasser et al. (1978) propose a model that addresses in part both of these shortcomings. They suggest a framework for the design of the service delivery system based on the degree of standardization, transaction volume per time period, locus of profit control,

type of operating personnel, type of customer contacts, quality control, orientation of facilities, and motivational characteristics for management and operating personnel. They incorporate service strategy issues into their model by using the desired service level that management chooses, based on market needs and service offerings of competitors, to dictate the design of the service delivery system.

However, Sasser et al.'s model assumes the service delivery system is designed as a profit center. While this sets a performance measure for the delivery system, a critical element in most service design planning models, they assume the service strategy has an underlying business strategy of profitability, sometimes true but definitely not always the case. For example, at Hitachi, a large data storage provider, its customer service center is managed as a profit center while its warranty center is run as a cost center. So Sasser et al.'s model is applicable in the design of the customer service center, but not necessarily to the warranty center. Additionally, nonprofit and government services face similar design challenges to those of for-profit firms, but do not evaluate the performance of their service delivery system on profit measures. Sasser et al.'s model has not been tested in research or applications in the extant literature. The research questions raised at the end of this section address the need to test such a model.

The service concept provides the basis for service design planning by incorporating the necessary elements presented in previous models (Sasser et al., 1978; Chase and Acquilano, 1989), while acting as the integrative element between an organization's business strategy and delivery of its service products (see Fig. 2). Business strategy for a service firm accounts for not only its mission and long-term objectives, but also its relative position in comparison to other firms in the marketplace. Firms develop competitive business strategies to differentiate themselves from other firms, deliberately choosing a set of activities that deliver to customers an experience and mix of value that is different from what competitors deliver. Hence, the critical decisions in service strategy include: (1) market positioning relative to competitors and (2) the type of relationship a firm wishes to pursue with its customers. Market positioning decisions entail choosing to be a 'service leader', 'middle-of-the-road', or a 'service laggard'. Customer relationship decisions mean choosing to build long-term partnerships with customers, to have time-bound contractual agreements, or to be on an encounter-by-encounter transactional basis (Cash et al., 1994).

Recall that the service concept includes the service strategy of *what* to deliver (market position and type of customer relationship) and *how* that strategy should be implemented. The *how* is carried out by the design of the service delivery system.

As described previously, Heskett (1987), and Chase and Bowen (1991) suggest that the design of a service delivery system includes the role of the people, technology, physical facilities, equipment, and the processes by which a service is created and delivered.

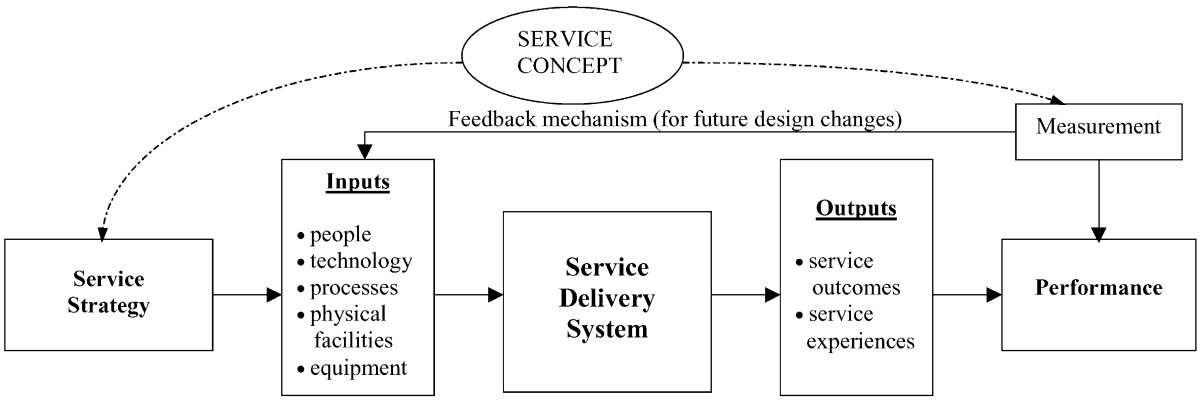

Fig. 2. Proposed service design planning model.

Missing in these frameworks is a crucial dimension that evaluates the above features, namely performance measures for the service delivery system.

Performance measures can vary widely from financial (revenues, cost, profit, return on investment) to operational (number of transactions per day, average time per transaction) to marketing (customer satisfaction). The service concept and its associated goals for both customers and the service delivery organization can be employed to help determine the most appropriate performance measures for a particular service. The choice of performance measures should subsequently drive structure and infrastructure investments to support customer and organizational goals. In particular, the chosen performance measures will affect the behavior of workers in all functional areas of an organization, and hence the service processes as well. This is especially true when employee rewards are linked to the performance measures. When managed appropriately, evaluating a service design and the structure and infrastructure surrounding it will improve the probability of achieving each functional area's performance goals.

The extant literature has been quite thorough in evaluating operational (transactions, time, etc.) and marketing-based (satisfaction, perception of quality, etc.) performance measures. However, absent from the literature is the role of financial measures in the design of the service delivery system. In practice, firms commonly use financial measures such as cost, profit, revenues, and return on investment (ROI) to track the performance of functional units.

Determining how to model performance measures in a service system design is complicated by the lack of standards within service industries. Firms with similar services and similar customers seem to manage their service delivery systems very differently. IBM, Sun, Hitachi and several large data storage service providers run their customer service centers as profit centers. However, EMC manages their service center as an investment center, tracking ROI in terms of the percentage of new sales made to existing customers and the percentage of customers retained from the previous year. EMC's customer satisfaction measure is known to be highly correlated with these two measures and these measures drive their yearly budget (upwards of $200 million in 1999) for the customer service division.

Firms are also known to operate service delivery systems differently for different customer segments, thus eliminating the opportunity to evaluate them against the same performance standards. For example, American Airlines has three levels of customer service: "special services" for "special customers", regular services for its frequent flyer program members, and limited services to non-members. The special services division is managed as an investment center, the frequent flyer program services are a profit center, and the customer service department for non-members is designed as a cost center. Hence, the financial measure for which the delivery system is designed can directly impact the resources (technology and people), processes, and services delivered to the customer.

3.3. Future opportunities in service design research

The service concept allows for consideration of any performance measures that are relevant to either customers or the service organization, and models or frameworks that integrate performance measures for service delivery systems similarly require flexibility in addressing this important feedback element of service design planning (see Fig. 2).

While some of these practices are quite prevalent in service businesses, the literature has not explored many of these issues. There are several questions that need more research.

- With service strategy as the first step of the service design planning process, how does management choose the desired service level? What are the market needs that correspond to the determination of the service level?
- How does management determine the type of relationship the firm wishes to pursue with customers? How do competitors' offerings drive this decision?
- What is service leadership? Should a firm strive to be a service leader? When is it better to be a middle-of-the-road provider or a service laggard? When is it better for a firm to have a long-term, contractual, or transactional relationship with its customers?
- Having decided the market positioning (service leadership versus middle-of-the-road versus service laggard) and the type of customer relationship (long-term versus contractual versus transactional)

to pursue, what performance measures should be used to drive service delivery system design decisions?
- What is the impact of the chosen performance measure on the people, technology, processes and service delivery? How do service features (profit margin, transaction volumes, etc.) determine the appropriate performance measures?

We now address the next level of detail in terms of the service concept—the service encounter level.

4. Using the service concept to design a service

Many dimensions of service design are driven by the service concept. As an example of how the service concept and service design drive decisions at the service encounter level, designing a service recovery plan is discussed here.

Service recovery design has emerged as a critical aspect of service design research, because ROI in service recovery can exceed 100% (Heskett et al., 1997). This high ROI may be related to a proven link between service recovery and customer satisfaction and loyalty (Spreng et al., 1995). In spite of the obvious benefits of effective service recovery, over 50% of customers studied report dissatisfaction with recovery efforts (Zeithaml et al., 1990).

Service recovery research is only beginning to move beyond the anecdotal stage. The seeming contradiction produced by previous research—that successful service recoveries have substantial financial payoff, yet service organizations fail to deliver successful recoveries in half of all cases—can be attributed not only to limitations in research methodology and service recovery models, but also to an overriding failure to apply the service concept in the research design. The following discussion summarizes the existing literature on service recovery and suggests areas for future research.

4.1. Present status of service recovery research

A good deal has been written on service recovery and complaint management including:

- nature of complaining behavior (see, for example, Halstead, 1989; Feinberg et al., 1990; Singh, 1990; Johnston, 1998);
- value of service recovery (Berry and Parasuraman, 1991; Hart et al., 1990; Johnston, 1995a; Barlow and Møller, 1996; Brown et al., 1996);
- developing measurement instruments (Cooper et al., 1989; Boshoff, 1998);
- elements of recovery and recovery strategies (Barlow and Møller, 1996; Boshoff, 1997; Boshoff and Leong, 1998; Johnston and Fern, 1999);
- impact of complaint and recovery on financial performance (Spreng et al., 1995; Johnston, 2001) and
- service recovery applied to internal customers (Bowen and Johnston, 1999).

The use of scenarios and critical incident techniques (CIT) have characterized most service recovery research. Scenarios are varying vignettes addressing the same issue; they are presented to respondents for evaluation. CIT consists of first using a procedure for collecting respondents' previous observations or experiences and then usually classifying these observations according to some schema developed by the researchers.

Until very recently, anecdotal studies predominated the service recovery literature along with a few correlational studies. Only two models for classifying and describing the antecedents and outcomes of service recovery have appeared in the literature (Miller et al., 2000; Smith et al., 1999). The Miller et al. model relates service recovery antecedents, three service recovery phases, types of service recovery activities, and delivery of service recovery to service recovery outcomes. The Smith et al. model "integrates perceived justice and expectancy disconfirmation, investigates specific aspects of the service failure and the recovery effort as antecedents to customer evaluations, and includes proactive and reactive recovery efforts" (p. 357).

From the Miller et al. and Smith et al. models, we gain an overview of what has been considered in service recovery design research. Researchers have tended to study factors determining consumer expectations about service recovery, as well as the *what* and *how* of service recovery. Higher levels of commitment and loyalty following recovery are linked to lower customer expectations of the service and recovery processes (Miller et al., 2000; Kelley and Davis, 1994). Similarly, higher perceived service quality of the core service is linked with lower customer expectations of

service recovery, an indication that perhaps customers are more tolerant when they perceive service quality to be high (Miller et al., 2000; Halstead et al., 1993; Kelley and Davis, 1994).

Customer dissatisfaction with service recovery efforts increases with the magnitude of the service failure (Levesque and McDougall, 2000; Smith et al., 1999; Miller et al., 2000; Hoffman et al., 1995; Bitner et al., 1990). Likewise, core service failures affect expectations of recovery, especially judgments of fairness (Smith et al., 1999; Bitner et al., 1990; Hoffman et al., 1995). The presence of a service guarantee can increase expectations regarding service recovery efforts (Miller et al., 2000; Halstead et al., 1993).

Service recovery strategy characteristics are also linked to customer satisfaction. Rapid initiation of service recovery strategies is associated with higher satisfaction (Miller et al., 2000; Smith et al., 1999; Clemmer and Schneider, 1996; Kelley et al., 1993; Clark et al., 1992; Hart et al., 1990; Bitner et al., 1990). Similarly, empowerment of front line workers to manage service recovery is linked to successful service recovery (Miller et al., 2000; Bowen and Lawler, 1995). Service recovery strategies that affect, in varying degrees, consumer satisfaction include: listening/acknowledgment, apology, fixing (replacement/correction), and compensation/atonement (Miller et al., 2000; Levesque and McDougall, 2000; Duffy et al., 2000; Smith et al., 1999; Johnston, 1999; Hoffman et al., 1995; Kelley et al., 1993; Hart et al., 1990; Zemke, 1994; Bitner et al., 1990). Customer satisfaction is linked to post-service recovery customer contact (Miller et al., 2000; Johnston, 1999; Bell and Zemke, 1987) as well as to the matching of service recovery expectations and perceptions mediated by judgments of fairness (Smith et al., 1999).

4.2. Limitations of existing studies

The use of scenarios in service recovery research prevents respondents from describing the service failure and subsequent service recovery efforts from the basis of their own expectations and perceptions. Scenarios are somewhat contrived since they capture only the scenario writer's concept of the service failure and service recovery. Respondents are constrained to do precisely that—respond to what the scenario portrays. The CIT, while allowing respondents to recount their own sense of the service experience, has generally been analyzed with the focus on only the surface level of the *what* and the *how* of the service recovery design rather than on a full accounting of the service concept which would relate the service recovery design and delivery to the customers' expectations of what the service is.

As with all qualitative research, the results of data analysis are determined in part by how the researcher organizes the data analysis. The observed data analysis in service recovery research has not been guided by the gestalt of the service concept. Instead the analysis has focused on identifying categories of recovery efforts that are linked to satisfaction.

Another limiting aspect of previous research is the lack of studies of relationship services. Relationship services, exemplified by professional services, tend to be long-term in nature and have more complex communication patterns and customer problems than transaction based services. The focus on the often transactional services such as hotels and restaurants has done little to advance our understanding of services in which the relationship between service provider and customer is critical to understanding the service experience. Furthermore, the frequent use of college students may have advanced our understanding of successful service recovery efforts from a student perspective, but not necessarily our understanding of the perspective of those customers whose loyalty and satisfaction are important determinants in service profit chain relationships (Heskett et al., 1997).

While recent attempts to model service recovery have greatly overcome the obvious limitations of anecdotal and correlational studies, neither the Miller et al. (2000) nor Smith et al. (1999) models are sufficiently robust since each model captures aspects of service recovery not included in the other model. Additionally, neither of the models includes non-human elements such as equipment or atmospherics that can influence customers' perceptions of service encounters. Furthermore, the models focus on mapping the dominant influences on customer satisfaction with service recovery. It appears that the service concept is as much a missing link in service recovery design research as it is in overall service design research.

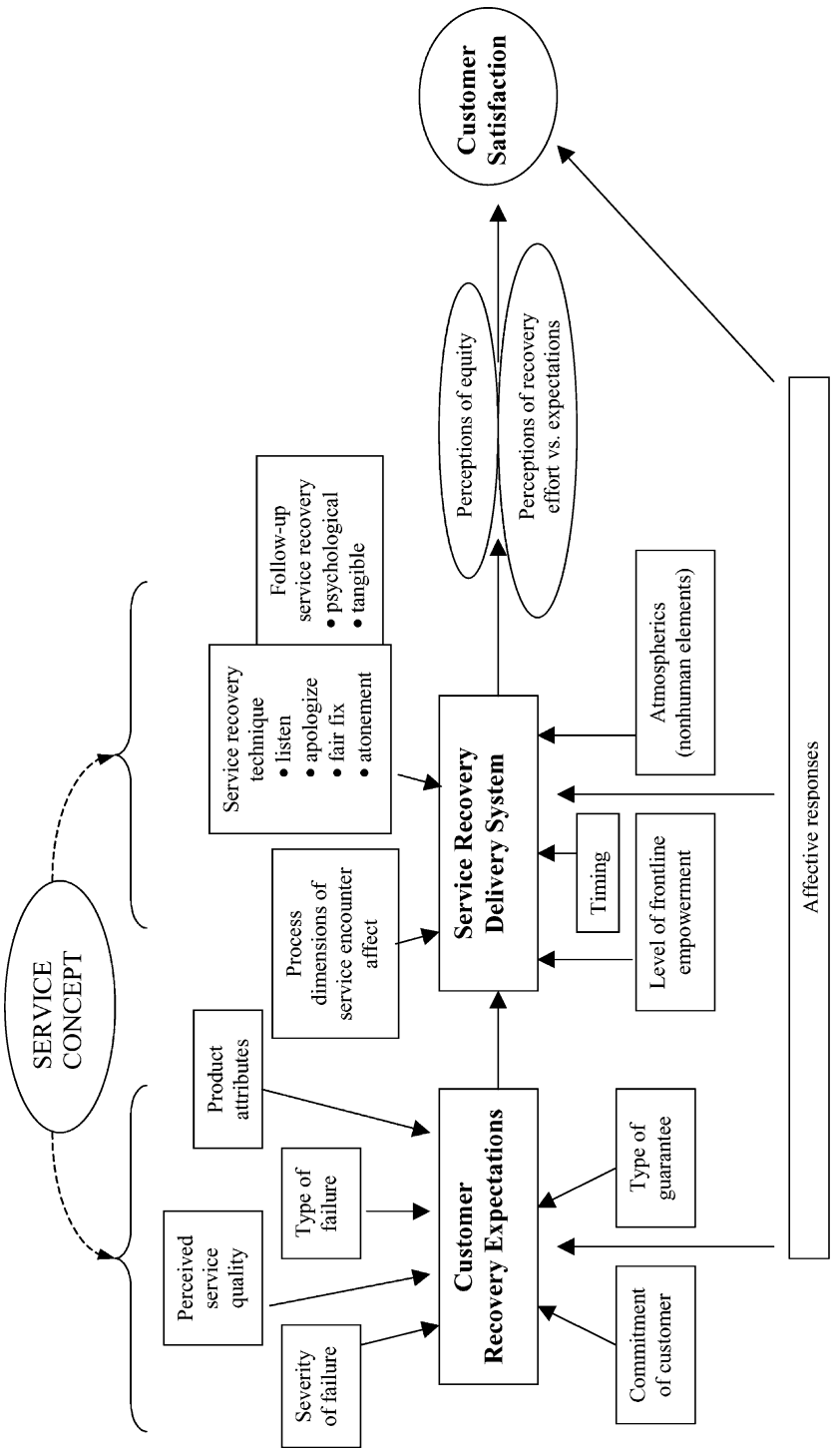

Fig. 3. Proposed service recovery model.

4.3. Future opportunities in service recovery research

Use of a variety of research techniques can serve to overcome some of the limitations associated with the use of scenarios and CIT. For example, Johnston's (1995b) findings regarding banking recovery strategies using scenarios are validated by a related study using a survey design (Duffy et al., 2000).

There is also an opportunity to test a more robust service recovery model, one that incorporates variables identified by Miller et al. and Smith et al. in their models of service recovery, as well as variables identified in the general service encounter literature: nonhuman elements and encounter process dimensions (Winsted, 1999; Parasuraman et al., 1991), and both general and specific affect, i.e. feelings (Alford and Sherrell, 1996; Jayanti, 1996) (see Fig. 3 for a model of the relationships discussed here).

The future of service recovery research takes on new dimensions if we imbed service recovery design within a service experience (service concept) perspective. A service concept perspective expands the research horizon by integrating the *what* and the *how* of service recovery with customer needs and strategic intent. Consider designing airline recovery efforts: students tend to be cost conscious and may identify monetary atonement as an important aspect of airline service recovery following failure. A time-sensitive business traveler, an arguably more important target customer, may not view monetary atonement as appropriate service recovery. Understanding the service concept that each of these customers is buying (expecting) helps an airline develop an appropriate service recovery plan. Thus, we model the influence of the service concept on both customer recovery expectations and the service recovery delivery system in Fig. 3.

Next, consider how the inclusion of the service concept in the design of an airline recovery system helps us see why the airline recovery design and the recovery design at a dentist's office must differ. Airline service is transactional in nature; the passenger wants the recovery to occur quickly, usually by the front line service provider. In contrast, the dental patient wants a service recovery to be conducted by the dentist, not the front line service provider. The service concept at a dental office includes, in most cases, a long-term doctor/patient relationship based on trust and competence. A critical component in the dentist's recovery design is the reestablishment of patient trust in the competence of the dentist. Understanding the differences in the service concepts of a dental office and airline helps us to understand why their service recovery designs must differ.

Making the service concept central to the study of service recovery highlights several important research needs and leads researchers to recast comparative studies of various service industries to answer the following research questions.

- How can researchers employ the service concept to identify target customer groups for studying the effects of service recovery efforts aimed at these groups?
- How can researchers identify gaps between customer expectations and perceptions as they relate to service recovery? More importantly, how can we identify gaps between provider perceptions of customer expectations (translated into strategic intent) and real customer expectations (based on the customer's service concept)?
- Do differing service concepts alter the important factors in the model of service recovery or affect the interplay of factors in the model? Are these factors different for relationship, transactional, and contractual services?

5. Conclusion

Studying the service concept helps us begin to understand how customers and service providers view services—as a sum of components (processes, facilities, tasks, etc.) or as a singular outcome that is sought from the service process. The service concept or "service in the mind" (Clark et al., 2000) is the customer's and provider's expectation of what a service should be and the customer needs it fulfills. It provides a foundation for developing the *what*, marketing content, and *how*, operations content, of a service as well as for facilitating alignment between the strategic intent of the firm and the delivery service itself. How customer needs and wishes are fulfilled by customers' experience and valuation of a service addresses the important domain of the service concept. The multi-dimensional service concept shows us that numerous derivatives of the same core service can be developed and marketed to a variety of target segments.

The service concept serves as the foundation upon which the components of the service delivery system are built. It also provides a framework for evaluating services on an ongoing basis as those services change and improve. Using the service concept as a means to drive strategic advantage is the 'pay-off' in terms of developing and defending a market position.

The service concept brings strategic intent into service design planning. The service delivery system comprises the structure (facilities, equipment, etc.), infrastructure (job design, skills, etc.) and processes for delivering a service. Additionally, the delivery system must accommodate the strategic intent of the firm, including its market position relative to competitors and the type of customer relationship to pursue. The service concept provides the framework for these linkages.

The design of service recovery processes is also enhanced by incorporating the notion of a service concept. Designing appropriate recovery mechanisms depends on the type of service, the type of customer relationship, and the target customer segment that are the focus of a service firm. Understanding what customers want and expect provides the basis for designing service recovery processes that meet those needs. Using the service concept to drive these design decision helps managers to be consistent and competitive in their service design.

We present a number of research questions related to the service concept, service design planning, and service recovery design that introduce the next step for research in each of these domains. Future opportunities for research in these areas lie not only in overcoming the limitations of previous research and incomplete modeling of these service design issues, but also in integrating the service concept into these designs.

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