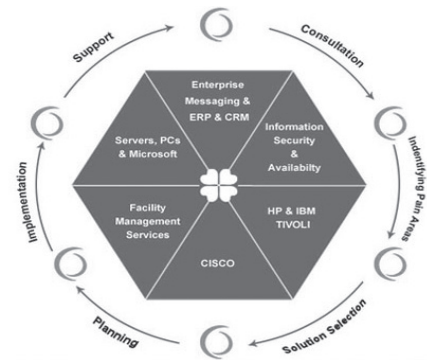


Elaborate Servicescapes: Spatial Dimensions

Ajith Paninchukunnath



Bitner (1992) proposed a typology of service organizations and servicescape dimensions. The dimensions of the physical surroundings include all objective physical factors that can be controlled by the firm to enhance (or constrain) employee and customer actions and were identified as ambient conditions, spatial layout and functionality, and signs, symbols, and artifacts. The present paper is an attempt to review the literature specific to the environmental dimensions of servicescape. An empirical study done among service consumers who are satisfied with the service encounter shows that interior of the service setting is more important and essential evidence is more important than peripheral evidence. The research identified three servicescape dimensions for elaborate servicescapes.

Booms and Bitner (1981) suggested that service organizations need to augment the four Ps of marketing with three additional elements. The services marketing mix adds three new Ps – participants, physical evidence and processes of service assembly. Pioneered by Bitner, 'servicescape' has gained much importance in service's research literature. Characteristics of servicescape can lead to behavioural responses like approach or avoidance. The present paper is an attempt to review the literature specific to the environmental dimensions of servicescape such as ambient conditions, space/function characteristics, signs, symbols, and artifacts. The paper also

reports the empirical findings of a study done among service consumers.

For service organizations, the service environment can be likened to the packaging of tangible products. The physical

facilities form the customer's first impression regarding the quality and type of service produced in addition to building up expectations. The physical evidence helps to define the service for the customer and can serve to guide customers through the service process. Physical evidence is important in making services seem tangible and thus easier for customers to evaluate the service delivery. Since the



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physical evidence contributes to how customers think about the organization, it must be designed and managed to achieve marketing objectives.

Literature Review

Physical Evidence

The physical evidence refers to everything tangible. It affects the consumer's service experience throughout the duration of the service encounter. When a customer enters a service system, the interactions with the service personnel and service environment can be thought of as filters through which the service experience is understood. This means that the service environment, which includes the design and atmosphere of the organization, must be managed as it is here that the customer's perceptions of the organization begin and in some cases end.

Physical evidence has been defined (Zeithaml and Bitner 2003, p.25) as: The environment in which the service is delivered and where the firm and customer interact, and any tangible components that facilitate performance or communication of the service. The physical evidence of a service then includes any tangible representations of the organisation, including the physical facility or building where the service is

offered, signs and equipment, brochures, letterhead, business cards and even billing statements. Physical evidence provides the opportunity for the organisation to send the message they want regarding the organisation's purpose and nature of the service.

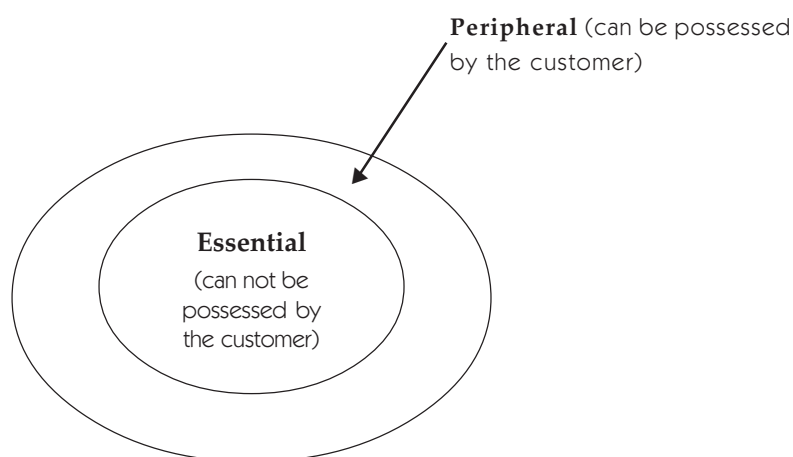
The importance of physical evidence to how a customer thinks about a service has been recognized for some time. As early as 1977 Shostack (1977, p.77) commented that: ...service images and service realities appear to be shaped to a large extent by the things that the customer can comprehend with their five senses - tangible things ... [and] when a customer attempts to judge a service, particularly before buying it, that service is known by the tangible clues, the tangible evidence which surrounds it.

As we can see, physical evidence is extremely far reaching as it is made up of anything tangible that the customer comes into contact with during the service experience. It is also very important to organizations as the tangible evidence offsets the intangibility characteristic of services. Therefore the service provider is seeking to make the service more tangible by creating physical evidence.

Types of Physical Evidence

There are two types of physical evidence - Peripheral evidence and Essential evidence (See Fig.1).

Figure 1: Peripheral and Essential Evidence



1. Peripheral evidence –This type of evidence can actually change hands during the service transaction as in the purchase of an airline ticket and confirm the service. They

can also include items which are complementary to the service itself. Examples include free pepsi with a meal, toiletries and chocolate in hotel rooms, newspapers and

magazines for airline passengers. Peripheral evidence is not the true service product; instead it confirms the existence or completion of a service.

2. Essential evidence –This type of evidence is integral to the service. They will not normally be owned by or passed on to the customer. Examples include facilities offered by the service provider, equipments used to deliver the service etc.

Peripheral evidence and essential evidence have been identified by Shostack (1981) as being:

... that which cannot be possessed by the customer as part of the service but it contributes to the overall ambience of the service environment. Examples of essential evidence include the buildings, furnishings, signage, layout, background music, even employees and their uniforms are considered part of the essential evidence.

... items which are actually possessed by the client as part of the service. The variety of peripheral evidence is enormous but includes such things as a credit card, a cheque book, an admission ticket, a souvenir post-card and invoices and statements.

In general, marketers have more difficulty with essential evidence because it often requires the skills of architects and interior designers. The problem is that professional designers, although understanding the aesthetics of design, may have no experience in understanding the package of customer needs in an organization. The quality and the standards of the essential evidence will be a major influence in the customer's purchase decision.

Atmospherics

Atmospherics is the conscious design of space to create certain effects on buyers and is based on an organization's atmosphere being understood through the five senses- touch, sight, taste, smell, hearing. For example, in terms of the sense of sight, lighting is very important for setting the mood in a service environment.

However, atmospherics has a limitation in that it is a simple stimulus-response model, which assumes that certain target groups will react the same way to a particular stimulus, and

that the response is involuntary. This limitation results in the inability of atmospherics being able to explain how consumers can selectively screen out specific stimuli and form impressions of a service based on relatively few characteristics.

Environmental stimuli as having an informational component, is processed by customers, as well as a physical component. This new field is called environmental psychology which is an extension of atmospherics because it provides the link between social variables and environmental variables.

Servicescapes (Physical Environments)

Servicescape is a concept that was developed by Booms and Bitner to emphasize the impact of the physical environment in which a service process takes place. Booms and Bitner defined a servicescape as "the environment in which the service is assembled and in which the seller and customer interact, combined with tangible commodities that facilitate performance or communication of the service" (Booms and Bitner, 1981). Servicescape is also called service setting.

Physical evidence consists of servicescape combined with the tangible elements, so servicescape is a part of physical evidence. Servicescape along with other tangibles like business cards, stationary, billing statements, reports, employee dress, uniforms, brochures, web pages and virtual servicescape forms the 'Physical Evidence' in marketing of services. Servicescape may be likened to 'landscape.' It includes facilities exterior (landscape, exterior design, signage, parking, surrounding environment) and facilities interior (interior design and decor, equipment, signage, layout, air quality, temperature and ambience). Servicescapes play an important role, both positive and negative, in customers' impression formation (Bitner, 1992).

The servicescape framework illustrates that the environment is made up of a combination of environmental dimensions including ambient conditions (temperature, music), space/function (layout, furnishings), and signs, symbols and artefacts (signage, style of decor). In this framework the behaviour of employees and customers is mediated by three responses - cognitive, emotional and physiological. This means, in contrast to previous models, participants

are seen as having voluntary responses as well as being active information processors.

Roles of Physical Evidence

Service firms should manage physical evidence with respect to roles (Bitner 1992). The various roles are:

- ◆ Packaging - Apart from functional reasons, it can contribute to image (positive or negative). Positive image can reduce perceived risk levels associated with purchase.
- ◆ Facilitator - Helps in facilitating the flow of service delivery process. It can also act as a facilitator by either adding or hindering the abilities of employees and customers in performing their activities during co-production of service. Provide information to the

consumer about the offerings, prices, policies and rules through signage, menus, brochures etc...

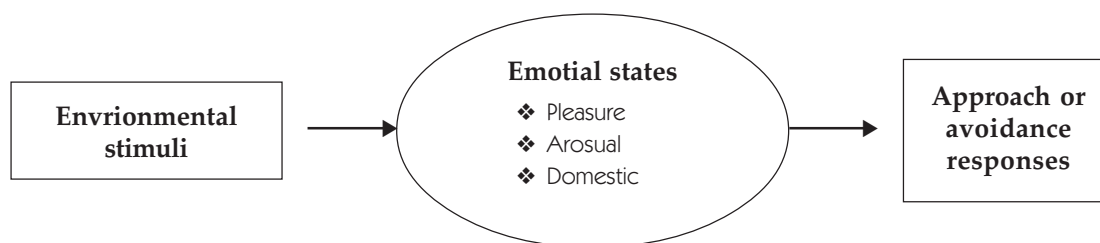
- ◆ Socialization - Help individuals to adapt to the values, norms and the required behaviour pattern of the organization. Provide space and opportunity to interact with consumers.
- ◆ Differentiation - Help in differentiating the firm from other service providers. Can help in attracting new market segments.

Framework for Understanding Physical Evidence

The SOR Model

Environmental psychology can help in the use of physical evidence to create service environments. The SOR model shown in Fig.1 helps in explaining the effects of service environment on consumer behaviour.

Figure 2: Three Components of SOR Model (Donovan et. al. 1982)



The SOR model has three components:

- ◆ Stimuli-Variou elements of physical evidence
- ◆ Organism-Recipients of stimuli (Both employees and customers)
- ◆ Response or outcome-Behaviour of approach or avoidance (of service setting)

The response to the set of stimuli is influenced by the emotional states of pleasure-displeasure, arousal-non-arousal, and dominance-submissiveness. Pleasure-displeasure reflects the extent to which the consumers feel satisfied with the service experience. The arousal-non-arousal refers whether they feel excited and stimulated about the service. The dominance-submissiveness reflects the degree to which consumers and employees feel in control and are able to act freely within the service environment.

The approach/avoidance behaviour is the consumer response to the set of environmental stimuli and is characterized by the following behaviour patterns:

- ◆ A desire to stay (approach or avoid) the service establishment
- ◆ A desire to further explore and interact with the service environment (approach) or a tendency to ignore it (avoidance)
- ◆ A desire to communicate with others (approach) or to ignore the attempts of service providers to communicate with customers (avoid)
- ◆ Feelings of satisfaction (approach) or disappointment (avoidance) with the service experience.

Servicescape Framework

The Servicescape provides a visual metaphor for an organization's total offering. Servicescapes play an important role in many service organizations in that they provide a first impression, before customers have a chance to interact with service employees. Therefore, these servicescapes are an important element that customers will use to guide their beliefs, attitude, and expectations of a service provider. Customers interact with the physical facility continuously, an experience that outweighs their interactions with service employees.

Bitner (1992) has offered an integrative network that incorporates atmospherics and environmental psychology. The holistic service environment is called a servicescape. As against atmospherics and environmental psychology, the servicescape framework recognises the importance of physical surroundings on employees as well as customers.

Exploratory Research -The Context

Bitner's Classification- Typology of Services and Servicescapes

Bitner (1992) proposed a typology of service firms by categorizing service organizations on two dimensions that capture important differences in the management of the servicescape. Firms that share a cell within the matrix face similar issues related to the design of their physical spaces.

The vertical dimension relates to who is performing actions within the servicescape—the customer, or the employee, or both. One extreme is represented by the “self-service” organization in which few if any employees are present and the level of customer activity is high. At the other extreme is the “remote service” where there is little or no customer involvement in the servicescape and sometimes even little employee involvement, such as in fully automated voice messaging services. “Interpersonal services” are positioned between the two extremes. In those organizations, both customers and employees are present and performing actions within the servicescape.

In interpersonal servicescapes, special consideration must be given to the effects of the physical environment on the

nature and quality of the social interaction between and among customers and employees. The horizontal dimension captures the complexity of the servicescape. Some service environments are very simple, with few elements, few spaces, and few forms. They are termed “lean” environments.

For lean servicescapes, design decisions are relatively straightforward, especially in self-service or remote service situations in which there is no interaction between customers and employees. Other servicescapes are very complicated, with many elements and many forms. They are termed “elaborate” environments. An example is a hospital with its many floors, rooms, sophisticated equipment, and complex variability in functions performed within the physical facility. In such an elaborate environment, the full range of marketing and organizational objectives theoretically can be approached through careful management of the servicescape. For example, a patient's hospital room can be designed to enhance patient comfort and satisfaction while simultaneously facilitating employee productivity.

Though Bitner's model shares similarities with other models like Mehrabian and Russell (1974), it is unique in its breadth of synthesis. Mehrabian and Russell focus on emotional responses only.

Interpersonal Services with Elaborate Servicescapes (Bitner 1992)

1. Health clinic
2. Hospital
3. School/College
4. Bank
5. Airline
6. Hotels
7. Restaurants

Author has added the 8th one to this list. It is the organized retail outlets since they also share the same characteristics.

Objective

In interpersonal services with elaborate servicescape and in situations of satisfying service encounters:

- ◆ Explore the dominant physical evidences
- ◆ Explore the dominant dimensions among physical evidences
- ◆ Check the reliability of dimensions and the total scale

Operational Definitions

- ◆ **Satisfying service experience** - A post consumption state of the customer resulting from a pleasant service encounter.
- ◆ **Service setting elements** - The elements in the environment in which the service is provided to the customer, both interior and exterior.

Service Setting

Categories and Operational Definitions

Interior - Elements of servicescape like Design, Décor, Equipment, Signage, Layout, Air Quality, Temperature, Noise, Music, Odor, and Cleanliness present inside the service setting.

Exterior - Elements of servicescape like Design, Signage, Parking, Landscape visible to the customer before entering the service setting.

Other tangibles - Elements within the service setting like Business card, Stationery, Billing statements, Reports, Employee dress/Uniform, Brochures, Web Pages used during service delivery.

Item Development

To explore the dominant physical evidences in interpersonal services with elaborate servicescape literature review and interviews with service customers were conducted. Based on this, 23 items were generated and the same was used to make the questionnaire (see Table 1). Seven point likert scale was used with anchor points highly dissatisfying=1 to highly satisfying = 7.

Table 1

Sl.No	Items to measure Service Setting
1	The design of the interior
2	The décor of the interior
3	The equipments in the interior
4	The signage(name board ,notice board etc..) of the interior
5	The layout of the interior
6	The air quality of the interior
7	The temperature of the interior
8	The noise in the interior
9	The music in the interior
10	The odour of the interior
11	The cleanliness of the interior
12	The lighting of the interior
13	The design of the exterior
14	The signage(name board, notice board etc..) of the exterior
15	The parking of the exterior
16	The landscape of the exterior
17	The business card they gave
18	The stationery they used
19	The billing statement they gave
20	The reports they gave
21	The dress/uniform of employees
22	The brochures they showed
23	Their website

Table 2

Parameter	Categories	Frequency	%
Gender	Male	133	44.3
	Female	167	55.7
Age (years)	20 – 30	174	58
	31 – 40	40	13.3
	41 – 50	47	15.7
	51 — 60	35	11.7
	Above 60	4	1.3
	Plus 2	33	11
Education	Degree	119	39.7
	PG	145	48.3
	Doctorate	3	1
	Student	145	48.3
Occupation	Employee	90	30
	Business	27	9
	Housewife	38	12.7
	Less than 100,000	55	18.3
Annual Family Income in Rs.	100,001 – 200,000	111	37
	200,001 – 300,000	75	25
	300,001 – 400,000	28	9.3
	400,001 – 500,000	12	4
	500,001 and above	19	6.3
	Health clinic	2	0.7
Industries	Hospital	40	13.3
	Retail outlet	68	22.7
	Bank	62	20.7
	College/Institute	56	18.7
	Airline	23	7.7
	Hotel	23	7.7
	Restaurant	26	8.7

Table 3

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.864
Bartlett's Test of Sphericity	Approx. Chi-Square	1259.56
	df	55
	Sig.	0
Extraction Sums of Squared Loadings	Variance-Cumulative %	65.727
Reliability Statistics	Cronbach's Alpha(11 items)	0.853

Table 4: Pattern Matrix^a

Items	Factor 1	Factor 2	Factor 3
The décor of the interior was	0.766		
The equipments in the interior was	0.872		
The signage(name board, notice board etc..) of the interior was	0.771		
The layout of the interior was	0.785		
The noise in the interior was		0.625	
The music in the interior was		0.899	
The odour of the interior was		0.698	
The business card they gave was			0.63
The stationery they used was			0.751
The billing statement they gave was			0.855
The reports they gave were			0.745

Extraction Method: Principal Component Analysis.

Rotation Method: Promax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

Table 5

Sl.No.	Dimensions	Items to measure Service Setting	Cronbach's Alpha
1	Interior	The décor of the interior was	
2		The equipments in the interior was	
3		The signage(name board ,notice board etc..) of the interior was	
4		The layout of the interior was	
			0.852
5	Ambient condition	The noise in the interior was	
6		The music in the interior was	
7		The odour of the interior was	
			0.706
8	Other Tangibles	The business card they gave was	
9		The stationery they used was	
10		The billing statement they gave was	
11		The reports they gave were	
			0.77

Data Collection

Data was collected from 300 urban service consumers in the Kochi city area of the Ernakulam district of Kerala. Cluster sampling method was adopted to collect the data. Questionnaire was administered by visiting the houses. Respondents were any adult who are above the age of 20 and has consumed any one of the eight interpersonal services in the past few months.

Data Analysis

Demo profile of the respondents is as given in the table (see Table 2).

Exploratory Factor Analysis

EFA done on 23 items initially gave five factors. With a KMO of 0.864, EFA was justified on the sample. The oblique rotation method used was Promax since there is no proof to assume that the items and dimensions are orthogonal. After deleting items with high correlation, cross loading etc., eleven items were retained which converged to 3 factors? The three factors together explained 65.7 percent of the variance. The factors were named as interior, ambient condition and other tangibles. Reliability Statistics was good with Cronbach's Alpha (11 items) 0.853 (see tables 3 to 5).

Findings

The interior aspects like décor, equipments, signage and layout emerged significant. Consumers rated ambient condition like noise, music and odour more important than air quality, temperature, cleanliness and lighting. Exterior aspects like design, parking signage and landscape did not emerge as an important dimension. Among items in the other tangibles dimension, business card, stationery, billing statement and reports emerged as the most important. Dress/uniform of employees, brochures and website was not considered important by consumers. Of the eight tangible elements found dominant, three are peripheral evidence. They are business card, billing statement and reports. The remaining five are essential evidence namely – stationery, layout, signage, equipment and décor.

Conclusion

This research has identified three dimensions which are important from the consumers' perspective in the context of face to face services in elaborate servicescapes. Managers of interpersonal service organizations should focus more on interior of service settings than exterior. Ambient conditions like noise, music and odour are more noticed by the consumers and should receive more attention. Tangible items like business card, stationery, billing statement and reports are also very important. Future research can focus on impact of service setting dimensions on overall service satisfaction. Similar study can be carried out among dissatisfied customers in similar context.

Key words – Physical evidence, Elaborate servicescape, Interpersonal services, Exploratory Factor Analysis

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