

SERVICE ENVIRONMENT: A New Dimension for Servant Company

Kleber C. Nóbrega (Corresponding author)

Doutor em Engenharia de Produção – POLI/USP
Mestre em Engenharia de Produção pela Universidade Federal de Santa Catarina - UFSC
Professor do Mestrado Profissional em Administração da Universidade Potiguar – MPA/UnP
Av. Eng. Roberto Freire, 2184, Capim Macio, CEP: 59.082-902, Natal/RN
E-mail: klebercn@unp.br

Walid Abbas El Aouar

Doutor em Administração pela Universidade Federal do Rio Grande do Norte – UFRN
Mestre em Administração pela Universidade Federal do Rio Grande do Norte/ UFRN
Professor e Coordenador do Mestrado Profissional em Administração da Universidade Potiguar – MPA/UnP
Av. Eng. Roberto Freire, 2184, Capim Macio, CEP: 59.082-902, Natal/RN
E-mail: walidbranco@gmail.com

Lais Karla da Silva Barreto

Doutorado e Mestrado em Estudos da Linguagem pela Universidade Federal do Rio Grande do Norte – UFRN
Graduação em Comunicação Social pela Universidade Federal do Rio Grande do Norte – UFRN
Professora do Mestrado Profissional em Administração da Universidade Potiguar – MPA/UnP
Av. Eng. Roberto Freire, 2184, Capim Macio, CEP: 59.082-902, Natal/RN
E-mail: laisbarreto@gmail.com

Raquel F. S. Nóbrega

Aluna do Curso de Arquitetura na Universidade Potiguar – UnP
Aluna (intercambista) do Curso de Arquitetura da Portland State University - PSU
1705, SW 11th Avenue – Portland/Oregon ZipCode: 97.201
E-mail: fraquel@pdx.edu

ABSTRACT

From service management perspective, servant organization model was proposed as a framework to analyze and promote a focus on client orientation to business organization. Servant company structure involves behavior, leadership, strategy, culture, processes and products. Starting with what motivates people to work as volunteer, servant organization was developed, but there was a lack for dealing with subjects related to physical aspects. What if there is no planning on facilities? Service performance may fail substantially. This paper had as objective to deal with this problem. Results appoint for a new and complementary dimension: service environment, including facilities, equipment, material, layout, sound and odor, information and system. Besides the theoretical approach, which allowed a framework for service environment, a case study was conducted, to show adequacy of the proposed structure in a real commercial business company. Elements shown may be used to analyze and detect items for improving service quality.

Keywords: *Servant Company. Service facilities. Service quality. Service environment. Servicescape*

1. INTRODUCTION

Much has been said and written about service environment, in order to facilitate management, as well as to indicate quality service factors related to physical facilities and other physical aspects. Some contributions have named models (Bitner, 1992; Reimer and Kuehn, 2005, Rosenbaum, and Massiah, 2011), dimensions (Bitner, 1992; Zeithaml, Berry and Parasuraman, Grönroos, 2009) or factors that affect both customer's perception and employees motivation and/or productivity.

Importance of service environment comes from the fact that services use to be played in a physical facility, using physical artifacts, and material. "Service environments play an important role in service delivery because environments can foster pleasant emotional reactions, while strengthening customer perceptions and retention" (Bitner, 1992; Baker et al., 2002). To Lin and Liang (2011), the design of the physical environment reduces pressure and evokes positive emotions. The authors mention Bitner 1992 and Chang (2000), to whom customers rely upon physical environments for cues in evaluating service satisfaction.

On the other hand, Nóbrega (2009) presented the servant organization approach, starting from servant behavior up to servant organization model, which included six dimensions: servant behavior, service leadership, service strategy, service culture, servant processes and servant products.

Although, it seemed to Nobrega that a missing dimension was not included in his model for servant company. In researches and/or empirical projects for identifying ways for improving service in companies and organizations, there was a difficulty in insert physical aspects, mainly those related to equipment, facilities, information, space and layout. According to the author, physical aspects like building, facilities and equipment are all service providers. He argues that, when Kotler (1988) defined service as an “activity or series of activities that one party may offer to another”, it can be understood that facilities provide services to people. This should be accepted, otherwise how can someone explain a service provided by a lift in a building. He emphasizes this idea calling attention to the experience of anyone when using a public restroom, and registers that there is nobody providing service for us, the Facility does it!

So, what would be a servant company, in its physical and non-human aspects? If servant behavior, leadership, culture and strategy dimensions are predominant related to people and business intelligence, as well as servant product dimension deals essentially with tangible aspects and goods, the only option to include facilities, equipment and similar would be servant processes. Although adopting this option seemed useful and adequate in many occasions, there were a few situations in which it seemed inadequate to connect physical attributes to process. In order to confront this problem, this research was initiated.

So, the objective of this paper is to present a structured approach to deal with the physical aspects of servant company. The research, in its very first stage, consists of a literature research, which aims to contribute for managerial discussion, and further methods or principles for establishing a scheme for service environment, aggregating factors to a kind of servant environment. The main source of literature included services marketing, quality of service, and environment psychology. In order to add value to this theoretical approach, a case study was conducted in a funeral service company, applying the proposed dimensions as a guide to evaluate and indicate environment opportunities for improving service

2. FUNDAMENTS

2.1 Servant company

Nobrega (2009) introduced the servant organization structure, showed in Figure 1: *Servant organization elements*. Source (Nobrega, 2009)

, which starts from individual servant behavior, and is extended to a servant company, based on a service leadership who promotes a service culture, in order to operate servant processes which deliver servant products, under a service strategy.

Servant behavior consists of a situation in which people behave demonstrating commitment to serving, much more than in being served. On the other hand, service leadership consists of a context where leaders, besides acting individually in a serving minded way, think strategically on service end promote service both to people and organization.

Service strategy establishes an organizational thinking in which the role of services is a central item in corporation's strategy. Servant products are products, goods or services, developed to contain attributes similar to service operations characteristics. Servant processes is meant as serviceable processes, i.e., processes designed to contain elements typical from service sector. Service culture is meant as the background of values, principles that may orient service procedures to everybody in the organization.

2.2 Service environment

One of the first contributions to environment aspects came from Kotler (1973), who mentioned the atmospheric or space design effects in buyers. Fowler and Bridges register that from that moment on, visual, olfactory, tactile and aural senses related to service environments have been researched to assess their effect on consumer attention, information (Baker et al., 2002; Chebat and Morrin, 2007).

A structured contribution came from Bitner (1992), who introduced the servicescape framework, using a typology of service organizations based on the variations in form and usage of the servicescape. A classification was made using, by one side, types of service based on who performs actions within the servicescape, and, on the other hand, the physical complexity of the servicescape. There are three types of service: self-service (customer only), interpersonal services (both customer and employee), and remote service (employee only). For each type of service, there are two options of physical complexity: elaborate, and lean. This scheme is mainly useful to analyze the impact of behavior aspects on customers and employees. The author draws attention to the fact that the effects

of ambient conditions may be more noticed when they are extreme (loud music, high temperature), when people spend a long time in the servicescape, and/or when there is conflict with expectations.

Bitner's servicescape framework may be considered one of the most cited contributions on service environment subject, and has been mentioned by several authors (Lin and Liang, 2011; Zeithaml et al, 2013; Grönroos, 2004, 2007, 2009; Reimer and Kuehn, 2005, Rosenbaum, and Massiah, 2011). Grönroos (2009), when introduced the service system model, divided it in two parts: visible and non visible. In the visible part, the author mentioned there are four parts: customers involved in the process; customers contact employees; system and operational routines; and physical resources and equipment. In the non-visible part, the author includes computers, documents. He registers the effect of waiting rooms interior on customer satisfaction, while physical resources and equipment have an internal effect on employees. Grönroos argues that the servicescape can also include objects, music and aromas.

Once Bitner (1992) introduced the service process landscape as a model for understanding the physical setting of service and its influence on both employees and customers. Spangenberg et al. (1996) argued that the presence of pleasant ambient scent may increase actual and perceived times spent in a store. Zeithaml et al. (1990), when developing Servqual framework for evaluation of service quality, included the dimension tangibles, corresponding to appearance of physical facilities, equipment, and personnel and communications materials. This is one of the most known contributions on service quality comprehension. Although it is a very explored contribution from the authors in literature, it does not include other aspects as functionality, performance, or aesthetics of physical facilities, in general.

Bitner (1992) in servicescape framework presents a list of factors, according to three environmental dimensions: ambient conditions (temperature, air quality, noise, music, odor); space/function (layout, equipment, furnishing); and signs, symbols and artifacts (signage, personal artifacts, style of decor). To Baker et al. (1994) ambient factors should consider some conditions, which not always are clearly present, or cannot be seen, such as air, lighting, music, and scent.

According to Bitner (1992), Wakefield and Blodgett's (1994) and Countryman and Jang (2006), mentioned that environmental comfort, such as temperature level, lighting, and music, affects both customers and employees satisfaction. Normann (2002), when presenting the service delivery system, included personnel, client and equipment and physical tools, mainly on the way how organization presents these last. The author points the impact of new technology – particularly information technology. To the author, although services involve social interactions, physical tools are critical to the functioning of such interactive systems.

Fitzsimmons and Fitzsimmons (2005) made a hard use of Bitner's servicescape framework to defend how a Facility should be projected, mentioning the three dimensions: ambient conditions, space/function, as well as signs, symbols and artifacts, with their corresponding aspects. Besides these elements, the author mention the necessity for dealing with flexibility, process flow, demand analysis for capacity planning, security, use of technology, information processing. Marodin (2010), in a research about hotel service quality, listed some attributes related to service environment: external appearance, Facilities security, room space, décor, temperature, noise, cleanliness, materials availability, internet availability, equipment availability and information availability. Edvardsson et al. (2010) provided a framework for the service environment, involving six dimensions: physical artifacts; intangible artifacts; technology; customer placement; customer involvement; interaction with employees.

Pareigis et al. (2011) researched about configurations of three different environmental dimensions – ambient condition (e.g. temperature, music), spatial layout and functionality (e.g. layout, furnishings) and signs, symbols and artifacts (signage, style of decor). In conducting a research about transportation service environment, their results showed, as items for physical environment, the issues: air quality, cleanliness, interior design, luggage space, music, noise level, seats and temperature. Lin and Liang (2011) elaborated a list of aspects for the service environment, such as layout, decoration style, lighting, and music. They argue that a well-designed physical environment will elevate customers' positive emotions and perceptions of the service encounter. Oliveira (2012), when studying about quality assessment for Small Claims Courts State, after crossing opinions of citizens, administrative staff, lawyers, and judges, identified for service environment the attributes: external signalization, cleanliness, clear information, and ambient comfort.

Fowler and Bridges (2012) discovered that the use of positive atmospherics (specifically ambient scent) leads to better employee attitudes in the service environment. The authors register that other characteristics have been empirically tested for their influence on consumers, including lighting (Summers and Hebert, 2001; Vaccaro et al., 2008), cleanliness (Barber and Scarcelli, 2010; Wakefield and Blodgett, 1996), and ambient scent

(Spangenberg et al., 1996). Findings from De Nisco and Warnaby (2013) study suggest that consumer's evaluation of service quality provided in specific streets within the town center is primarily related to space layout and functionality. Rosenbaum and Massiah (2011) proposed an extended framework for Bitner's servicescape paradigm, including the dimensions: Social dimensions; Socially symbolic dimension, and Natural dimension.

Zeithaml et al. (2013) made hard use of Bitner's servicescape framework and its three dimensions. The authors, although, complement some aspects as color, texture, quality of materials. In this update literature the authors include guidelines for physical evidence strategy, including the necessity to recognize the strategic impact of physical evidence, blueprinting the physical evidence of service, clarify strategic roles of the servicescape, assess and identify physical evidence opportunities, update and modernize the evidence, and work cross-functionally.

3. METHODOLOGY

The present paper shows results in two parts. The first one corresponded to a theoretical approach, in which a literature research was made, in order to propose a framework to service environment, aggregated to servant company model. The scheme is presented in next section. A second part corresponded to a practical application of the scheme, aiming to make some reflections about the usability of the scheme.

Since servant organization has been a recent approach, and its dimensions are still in development, much of this paper was based on literature research. This was based on Emerald data basis, using mainly the last five years, and using as search terms "service environment", "physical aspects", "and service facilities". A deep lecture was made in search of environment factors present in literature, to check their frequency of citation, and to build a structured framework, which were able to propose a comprehensive scheme, in such a way that it can be used in scientific research as well as for organizations management.

After building the scheme, a first practical of it was conducted, at the commercial area of a company that works with funeral plans. Grupo Vila, founded in 1948, is an organization that works with cemetery, funeral services, and commercializes, together with these, funeral plans, something similar to insurance plans. These plans are commercialized in a sale-at-home system, as well as in the company's dependences. Besides customer service for sales, these dependences are used to receive payment, solve problems and doubts, update documents and contracts, and to make new contracts affiliation.

During 60 days approximately, from September to November 2013, as part of a program for service improvement, employees were asked to identify problems and appoint possible improvements on service environment, in their respective job locations. They visited different locations, took pictures, and made meetings with their managers, in order to identify, discuss and analyze service environment opportunities for improvement. No previous reference was used, i.e., they did not know the theoretical scheme. After the task was finished, the service environment scheme was delivered to the participants, so that they could classify the identified improvement opportunities in accordance with the elements and attributes of the scheme. Data were analyzed using descriptive statistics.

4. RESULTS AND DISCUSSION

4.1 Service Environment framework

Once Servant company structure uses to be presented in the sequence dimension-element-attribute. Figure 2: *Service Environment Elements. Source (Research)*

shows the elements and a conceptualization derived from literature contribution. In order to facilitate the comprehension and the coherence with other publications about servant company, the attributes were structured in the following elements: Facilities, equipment, layout, material, information, system, and sound & odor. For each of these elements, attributes were identified and registered.

A synthesis of the contributions found in literature used for this paper is shown in Figure 3: *Attributes for Service Environment listed in literature*

, where each of the elements is detailed in their respective attributes. Among the authors Bitner appears as the strongest contributor, followed by Zeithaml, with whom that author published papers about service environment and other topics. Grönroos and Fitzsimmons, who also referred Bitner, also appear in a high frequency. Relating to attributes, those presenting higher frequency were: pleasant ambient, air quality, lighting, temperature, equipment, access, layout (spatial distribution), information, music and noise. From these ten, Bitner pointed 8, only not including odor and pleasant ambient. In a correspondence elements-attributes, basing on the attributes frequency of citation, the most cited element was Facilities, with over 27.8% of citations; sound & odor corresponded to 21.4% of citations; layout and information corresponded equally to 15.9% of citations. The least cited were Materials and System both with 4.8% of total citations.

4.2 Case study about service environment

As part of a program evolving 64 employees of the sale department of the studied company, with the main objective of identifying service environment opportunities for improvement, they were asked to conduct visit on each location, in order to identify “any opportunity they could detect, and elaborate an action plan which should be discussed with managers. The theoretical scheme, developed in this paper, was not shown to them before they could identify data and evaluate potential of implementation. Only after they had all data processed and analyzed, the scheme was delivered to them, and they, at this time, were asked to classify the improvement opportunities, according to the elements and attributes. **Table 1** shows the frequency of appearance of the attributes, according to the non-systematic identifications, made by the company’s employees, during the service improvement project.

This research did not have as objective access correlation with the attributes shown in Figure 3: *Attributes for Service Environment listed in literature*

, derived from literature. Although, some observations can be made. Similarly, to detect importance order for attributes, or even the elements, was not an objective for the present research. Although, some points may be cited:

- The element Facilities corresponded, in the practical project, to around 58%
- Together, the elements Facilities and Equipment correspond do 75% of all the occurrences
- The third most frequent element was layout, with 9% of the total.
- On the other hand, music, noise and odor were not mentioned as opportunity for improvement.

Regarding attributes, three showed higher frequencies: pleasant ambient (21.21%), access and locomotion (18.18%), and cleanliness (15.15%). These three corresponded to 54.5% of the improvement opportunities. On the other hand, some attributes were not associated to any improvement: air quality, lighting, equipment adequacy, service flow, comprehensible material, material ease of use, material identification, information preciseness, system ease of use, continuous system, music, noise and odor.

5. CONCLUSION

Since the beginning of servant company studies, the objective was to expand what should be a whole organization focused on serving sense, concept and principles, taking as starting point, the servant individual behavior. Joining servant behavior with service leadership, it was possible to structure a framework, containing four more dimensions: strategy, product, processes and culture. But there was a sense of lack to deal with physical aspects.

The present paper, making use, firstly, of a theoretical approach, brought a significant contribution, by introducing the seventh dimension: service environment. Resulting from a literature approach, the service environment consists of seven elements – facilities, equipment, layout, material, information, system, and sound & odor. Each of these elements is divided in attributes, which may be used to plan, design, implement and evaluate service, i.e. how servant a company can be, in the environment dimension. A practical analysis of the scheme was made possible, providing reflections both for the theoretical approach and for a case for improving service environment aspects.

As managerial implications, it is believed to be possible the use of the scheme for designing, planning, operating and evaluating a servicescape. As a dimension for promoting service to customer service, emphasizing serving sense, the service environment elements may be used as a guide to plan physical aspects, in accordance with strategy, and to plan processes similarly. The research non systematic of the developed scheme showed that, if it had been used, some other issues could, possibly be identified, allowing new improvement opportunities. As a matter of fact, although physical aspects use to be considered when estimating costs, it is believed that not always, their impact on customer perception is truly considered. This may be a good opportunity for management to optimize their knowledge through the use of this guide.

As limitation and future research, due to the theoretical character of this paper, generalization should no be made. It will be a good enrichment of this research to rank, in order of importance, the attributes here listed, as well as to conduct some kind of a statistical analysis, like factorial analysis, to access the convergence of the attributes in their respective groups, here named elements. Such study will be of greater value if applied to different business segments.

REFERENCES

Baker, J., Grewal, D. and Parasuraman, A. 1994. “The influence of store environment on quality inferences and store image”, *Journal of the Academy of Marketing Science*, **22**(4): 328-39.

- Baker, J., Parasuraman, A., Grewal, D. and Voss, G.B. 2002. The influence of multiple store environment cues on perceived merchandise value and patronage intentions. *Journal of Marketing*. 66(2): 120-141.
- Bitner, M. J. 1992. Services capes: the impact of physical surroundings on customer and employees. *Journal of Marketing*. 56(April 1992): 57-71
- Carvalho, C. T. 2011. Relação entre Orientação para Serviço e o Senso de Servir: O caso de um Restaurante Comercial. *Dissertação de Mestrado*. Universidade Potiguar. Natal.
- Chebat, J. and Morrin, M. 2007. Colors and cultures: exploring the effects of mall décor on consumer perceptions. *Journal of Business Research*. 60(3): 59-74.
- Countryman, C.C., Jang, S. 2006. The effects of atmospheric elements on customer impression: the case of hotel lobbies. *International Journal of Contemporary Hospitality Management*. 18(7): 534-545.
- De Nisco, A., Warnaby, G. 2013. Shopping in downtown: the effect of urban environment on service quality perception and behavioral intentions. *International Journal of Retail and Distribution Management*. 41(9): 654-670
- Edvardsson, B., Enquist, B. and Johnston, R. 2010. Design dimensions of experience rooms for service test drives: case studies in several service contexts. *Managing Service Quality*. 20(4): 312-27.
- Fitzsimmons, J. A., Fitzsimmons, M. J. 2005. *Administração de Serviços* 4 ed. Bookman. Porto Alegre.
- Fowler, K., Bridges, E. 2012. Service environment, provider mood, and provider-customer interaction. *Managing Service Quality*. 22(2): 165-183.
- Grönroos, C. 2004. *Marketing: Gerenciamento e Serviços*. Elsevier. Rio de Janeiro.
- Grönroos, C. 2007. *Service Management and Marketing*. John Wiley and Sons. West Sussex.
- Grönroos, C. 2009. *Marketing: Gerenciamento e Serviços*. Elsevier. Rio de Janeiro.
- Kotler, P. 1973. Atmospherics as a marketing tool. *Journal of Retailing*. 49 (4): 48-64.
- Kotler, P. 1988. *Administração de Marketing*. Atlas, São Paulo.
- Lin, J., Liang, H. 2011. The influence of service environments on customer emotion and service outcomes. *Managing Service Quality*. 21(4): 350-372.
- Marodin, T.G. 2010. Expectativa e Qualidade Percebida dos Serviços hoteleiros na cidade de Natal. *Dissertação de Mestrado*. Universidade Potiguar. Natal.
- Normann, R. 2002. *Service Management: strategy and leadership on service business*. John Wiley and Sons. New York.
- Nóbrega, K. C. 2013. *Falando de Serviços: um guia para compreender e melhorar os serviços em empresas e organizações*. Atlas. São Paulo.
- Nóbrega, K. 2009. Servant organization: how individual behavior can be expanded to a business approach. *POMS 20th Annual Conference*. POMS. Orlando.
- Oliveira, H. C.C. 2012. Avaliação da qualidade de Juizados Especiais Cíveis Estaduais. *Dissertação de Mestrado*. Universidade Potiguar. Natal.
- Pareigis, J., Edvardsson, B., Enquist, B. 2011. Exploring the role of the service environment in forming customer's service experience. *International Journal of Quality and Service Science*. 3(1): 110-124.
- Reimer, A. Kuehn, R. The impact of servicescape on quality perception. *European Journal of Marketing*. 39(7/8): 785-808
- Rosenbaum, M., Massiah, C. 2011. An expanded servicescape perspective. *Journal of Service Management*. 22 (4): 471-490
- Spangenberg, E.R., Crowley, A.E. and Henderson, P.W. 1996. Improving the store environment: do olfactory cues affect evaluations and behaviors? *Journal of Marketing*. 60(4): 67-80.
- Wakefield, K.L., Blodgett, J.G. 1994. "The importance of servicescapes in leisure service settings", *Journal of Services Marketing*, Vol. 8 No. 3, pp. 66-76.
- Zeithaml, V. ZEITHAML, Parasuraman, A., Berry, L. 1990. *Delivering quality service: balancing customer perceptions and expectations*. New York: The Free Press.
- Zeithaml, V., Bitner, M. J., Gremler, D. D. 2013. *Services Marketing: integrating customer focus across the firm*. 6th edition. New York: Mc Graw Hill.

Appendix – Tables and Figures

Servant organization elements					
Servant Individual	Service Strategy	Servant Products	Servant Processes	Service Culture	Service Leadership
Responsibility	Internal marketing	Intrinsic quality	Systematized	Focus on results	Results and persuasion
Simplicity	Good relations	Facilitates use	Caregiver	Respect	Educated and patient
Resignation	Access	Informative	Responsive	Serving	Listening and stewardship
Initiative	Supplementary services	Intelligent	Agile	Responsiveness	Influent and awareness
Willingness to help	People development	Customer focused	Flexible	Committed to others	Empathy and committed to people growth
Welfare practices	Social responsibility	Environmental non affective	Customer focused	Common good	Common good, building community
Usefulness	Service focus	Supplementary attributes	Informative	Usefulness and efficiency	Educator

Figure 1: Servant organization elements. Source (Nobrega, 2009)

Service Environment Elements	Conceptualization
Facilities	The design and disposal of adequate facilities, consisting of facilitated access and locomotion, an pleasant ambient, air quality, cleanliness, lighting, adequate space and temperature
Equipment	Availability of adequate, functional and good located/accessible equipment, which may be ease of use
Lay out	Spatial distribution of equipment and furnishing, facilitating access, providing service flow and continuity
Material	Comprehensible and accessible material, with easy handling and well identification
Information	The care with available, clear, precise and correct information
Systems	Development and availability of agile, ease of use, and non stop systems
Sound and Odor	The design and use of adequate, integrated and harmonic sound and odor

Figure 2: Service Environment Elements. Source (Research)

Elem.	Attribute	Authors
Facilities	Access / Locomotion	Oliveira (2012)
	Ambient (Pleasant)	Kotler (1973), Zeithaml et al. (1990), Marodin (2010), Oliveira (2012)
	Air Quality	Bitner (1992), Baker et al. (1994), Fitzsimmons (2005), Grönroos (2004, 2007, 2009), Pareigis et al. (2011), Zeithaml et al. (2013)
	Cleanliness	Barber and Scarcelli (2010), Wakefield and Blodgett (1996), Marodin (2010), Oliveira (2012)
	Lighting	Baker et al. (1994), Wakefield and Blodgett's (1994), Summers and Hebert (2001); Countryman and Jang (2006), Vaccaro et al. (2008), Lin and Liang (2011)
	Space	Marodin (2010), Pareigis et al. (2011)
	Temperature	Bitner (1992), Wakefield and Blodgett's (1994), Fitzsimmons (2005), Countryman and Jang (2006), Grönroos (2004, 2007, 2009), Marodin (2010), Pareigis et al. (2011), Zeithaml et al. (2013)
Equipment	Adequacy	Zeithaml et al. (1990), Bitner (1992), Normann (2002), Fitzsimmons (2005), Grönroos (2004, 2007, 2009), Zeithaml et al. (2013)
	Ease of use	Marodin (2010)
	Functionality	Normann (2002), Marodin (2010), Pareigis et al. (2011)
	Localization / access	Fitzsimmons (2005)
Lay out	Access	Bitner (1992), Normann (2002), Fitzsimmons (2005), Grönroos (2004, 2007, 2009), Zeithaml et al. (2013)
	Flow	Fitzsimmons (2005)
	Service continuity	Fitzsimmons (2005)
	Spatial distribution (harmonic use of space)	Bitner (1992), Normann (2002), Fitzsimmons (2005), Grönroos (2004, 2007, 2009), Marodin (2010), Pareigis et al. (2011), Lin and Liang (2011), De Nisco and Warnaby (2013), Zeithaml et al. (2013)
Materials	Accessible	Normann (2002), Marodin (2010)
	Comprehensible	Zeithaml et al. (1990)
	Ease of use	Normann (2002)
	Identifiable	Marodin (2010), Oliveira (2012)
Information	Available / clear	Bitner (1992), Normann (2002), Fitzsimmons (2005), Grönroos (2004, 2007, 2009), Marodin (2010), Pareigis et al. (2011), Fowler and Bridges (2012), Oliveira (2012), Zeithaml et al. (2013)
	Correctable	Bitner (1992), Normann (2002), Fitzsimmons (2005), Grönroos (2004, 2007, 2009), Zeithaml et al. (2013)
	Preciseness	Fitzsimmons (2005), Marodin (2010)
System	Agility	Normann (2002), Fitzsimmons (2005), Zeithaml et al. (2013)
	Ease of use	Normann (2002), Zeithaml et al. (2013)
	Non stop	Normann (2002)
Sound and Odor	Music	Bitner (1992), Baker et al. (1994), Wakefield and Blodgett's (1994), Fitzsimmons (2005), Countryman and Jang (2006), Grönroos (2004, 2007, 2009), Pareigis et al. (2011), Lin and Liang (2011), Zeithaml et al. (2013)
	Noise	Bitner (1992), Fitzsimmons (2005), Grönroos (2004, 2007, 2009), Pareigis et al. (2011), Zeithaml et al. (2013)
	Odor	Bitner (1992), Baker et al. (1994), Spangenberg et al. (1996), Fitzsimmons (2005), Grönroos (2004, 2007, 2009), Fowler and Bridges (2012), Zeithaml et al. (2013)

Figure 3: Attributes for Service Environment listed in literature

Element	Attribute	Total of improvement opportunities identified	Attributes Percentage	Element percentage
Facilities	Access / Locomotion	6	18.18%	57.58%
	Ambient (Pleasant)	7	21.21%	
	Air Quality	0	0.00%	
	Cleanliness	5	15.15%	
	Lighting	0	0.00%	
	Space	1	3.03%	
	Temperature	0	0.00%	
Equipment	Adequacy	0	0.00%	18.18%
	Ease of use	2	6.06%	
	Functionality	1	3.03%	
	Localization and access	3	9.09%	
Layout	Accessible	1	3.03%	9.09%
	Flow	0	0.00%	
	Service continuity	0	0.00%	
	Spatial distribution	2	6.06%	
Materials	Accessible	1	3.03%	3.03%
	Comprehensible	0	0.00%	
	Ease of use	0	0.00%	
	Identifiable	0	0.00%	
Information	Available and clear	1	3.03%	6.06%
	Correctable	1	3.03%	
	Preciseness	0	0.00%	
System	Agility	2	6.06%	6.06%
	Ease of use	0	0.00%	
	Non stop	0	0.00%	
Sound and	Music	0	0.00%	0.00%
	Noise	0	0.00%	
	Odor	0	0.00%	

Table 1: Improvement opportunities identified in a Commercial servicescape