The impact of Healthscape on Service Quality and Behavioural Intentions

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Abstract— Customer perceptions about the physical environment are not fully understood which is considered to be an important element in the service setting. The present paper explores whether the physical facilities in hospitals i.e. ‘healthscape’ has an impact on service quality and behavioral intentions which have been studied and modeled in other service settings. The present study attempts to prove or disprove these relationships among three constructs healthscape, service quality and behavioral intentions from a developing countries perspective. The data is collected from 295 patients from three teaching hospitals in the state of Karnataka, India. The results indicate healthscape exerts a stronger influence on behavioral intention than the overall service quality and reiterate the relationship.

Keywords- behavioural intention; healthscape; servicescape; service quality; teaching.

I. INTRODUCTION

The importance of service environment was first recognized by the researcher [1] who stated that the atmospherics ‘may [in the future] become the chief form of competition’. Thus, researcher [1] initiated and declared the idea of the physical environment as an important part of the service experience. However, the researchers [2] advanced to the concept of servicescape, defining ‘servicescape’ as ‘the environment in which the service is assembled and in which seller and consumer interact, combined with tangible commodities that facilitate performance or communication of service’ (p.36). Hence the physical facilities of a service are known as servicescape [3, 4], symbolizing the physical surroundings of a service. Reference [5] narrowed the topic to healthcare facilities as ‘Healthscape’ modifying servicescape framework [3] and combining it with atmospherics [1].

It is said that the first impression is the best impression. The service environment is the first characteristic of service that is perceived by the customer and at this stage the consumers are likely to form impressions of the service level. It is identified that the customers see more and process more information than managers and service providers in the selection and usage of services [6]. Although customers cannot grasp a service per se, they can grasp the various tangibles associated with the service, which are clues for the ‘invisible’ service. The use of atmospherics to create environments and its influence on the behavior of individuals is stated to as environmental psychology. Environmental psychologists recognized that the environment is capable of influencing a wide range of behaviors as well as providing a context in which these behaviors occur [7], suggesting that individuals react in two general and opposite form of behavior to places: approach and avoidance [8].

According to cue utilization theory products or services consist of an array of cues that serve as surrogate indicators of the product’s quality [4]. In any product, cue could be derived from the actual physical product (intrinsic cue) or from product-related attributes apart from the physical product (extrinsic cue) [9]. Although many cues are usually available for the tangible products, the service customer is limited to a small number of cues because of the intangible nature of services. Services involve simultaneous production and consumption. Moreover, as the customer enters the service facilities they are within the servicescape even before making any purchase decision. Since the consumer comes into the service factory the environment takes on additional importance in a service context [10]. Thus, the servicescape offers easily accessible cues to customers seeking an information searching shortcut [11] and customers act as detectives in the manner of processing and organizing experience clues [6].

The service quality has gained a lot of attention after the SERVQUAL model [12, 13]. They put forth their model consisting of five dimensions for measuring service quality. Among the five dimensions one is termed as ‘tangible’. There are numerous studies that have measured service quality concepts across industries and countries. Healthcare is no exception. The researcher [14] identified that different terminologies are used for stating ‘tangibles’ by various researchers measuring service quality in healthcare. Reference [15, 16] have used ‘tangible’, while other researchers have altered the terms such as ‘physical environment’ [17], ‘physical environment and infrastructure’ [18], ‘physical surroundings’ [19], and ‘pleasantness of surroundings’ [20] to denote the physical facilities and ambience in their studies.

The behavioral intention is defined as a signal of whether customers will remain or exit the relationship with the service provider [21]. Although there are numerous definitions for behavioral intention defined by numerous researchers, the
underlying interest as recognized in the literature is that of predictor of the profitability of service firms [22, 23]. It is remarkable to note that both costs and revenue of firms are affected by repeat purchases, positive word-of-mouth (WOM) recommendations and customer feedback.

Researchers have been exploring the cues in their evaluation of services. Reference [24] identified the single cue available to the consumer in services are the service’s price and the physical facilities, whereas other researcher [25] found that the personal referrals as well as physical facilities are the most frequently used cues to evaluate a service. Thus, the relevance of physical facilities as an important cue in evaluating services is evident. Moreover different researchers have referred to physical facilities, i.e. the servicescape, as a quality indicator. Reference [12, 13] must be recognized for the inclusion of the servicescape aspect denoted as ‘tangibles’ in conjunction with other factors for determining the service quality. According to studies conducted by researchers [12, 13, 26], ‘tangibles’ consists of physical facilities, equipment, appearance of personnel and communication material. Although the ambient conditions of [3] such as temperature, noise or odor which were not considered in the studies [12, 13, 26] are also interpreted as tangible dimensions of service since they can be directly perceived with the human senses [27]. Although there are varieties of studies conducted to demonstrate the impact of servicescape on emotion, customer satisfaction [28], service quality [4, 29], behavioral intention [30], there are limited studies conducted in the servicescape of healthcare i.e. healthscapes. One such study conducted by researcher [31] declares that healthscape consists of three dimensions which are: ‘Visual Appeal and Layout’, ‘Amenity’, and ‘Neatness and Hygiene’. Although there are numerous studies conducted measuring service quality in healthcare as presented in their meta-analysis of the studies [32] on measuring patient-perceived service quality, however, there are no studies conducted which indicate the relationships among the servicescape in healthcare context to the service quality and behavioral intentions. Therefore, the present paper explores whether the physical facilities i.e. ‘healthscape’ has an impact on overall service quality (OSQ) and behavioral intentions (BI) which have been studied in other service setting.

II. FOCUS OF THE STUDY

Today there is an increased attention given to hospital services due to improved standard of living and demand for better medical care to improve the lifestyles. In the healthcare sector too there is an on-going debate about the measurement of service quality provided by the patients. Interestingly, it is found that in healthcare the patients lack the knowledge and skill to properly judge medical service quality for the technical aspects of service [33], nevertheless, the patients are adequately qualified to measure functional quality dimensions such as lab cleanliness, etc. [34]. Thus, the present study examines the relationship between servicescape in hospital setting and service quality. This is of interest mainly due to the contrary findings in the literature. The relationship of servicescape along with other elements of quality using SERVQUAL indicated that the tangible factor (servicescape) was more important than the four intangible factors in determining quality [4]. However, the seminal work of [12] found that the intangible factors were significantly more important than the tangible factor. Further, the importance of a particular servicescape (S) component is expected to vary across different service organisations [1, 3]. Therefore the nature of this relationship is interesting to explore in healthcare. Recently researcher [35] explored this link in a retail store using the framework as shown in the fig. 1. The present study has applied [35] framework omitting the employee service quality dimension (ESQ) in the different service setting.

![Figure 1: Relationship among Servicescape, overall service quality and behavioral intentions (Source: [35], p.274)](image)

From the literature it is found that most studies are conducted to explore the causal relationship among the constructs: service quality, satisfaction and behavioural intentions such as [36, 37]. Accordingly, the present study proposes to test the framework as shown in fig.2 with the three hypotheses:

H1. Healthscape (HS) perceptions will have a direct and positive effect on overall service quality.

H2. Overall service quality (OSQ) has a direct and positive effect on behavioural intentions.

H3. Healthscape perceptions have a direct and positive effect on behavioural intentions (BI).

![Figure 2: Path analysis – theoretical model of the healthscape, service quality and behavioral intention](image)

III. STUDY METHODOLOGY

A questionnaire was developed in English that was pre-tested to arrive at appropriate format. It was converted into Kannada, the language spoken in the state of Karnataka as the study was conducted in three teaching hospitals in the state of Karnataka, India. A sample of 295 patients was considered in the study. Out of the sample there are 155 inpatients and 140 outpatients and comprised of 118 males and 177 females. The study adopted the sampling method of systematic random sampling in selecting the respondents for the study. Every fifth patient in the ward was considered for the study to whom a questionnaire in English or Kannada was handed over based on
the language proficiency of the respondent; whereas in case of outpatient every fifth patient visiting the hospital was considered for the study and questionnaire either in English or Kannada was administered. There are 15 items for measuring healthscape those considered from the studies measuring the service quality in healthcare. Further a pilot study revealed that respondents had no difficulty in understanding the questionnaire items indicating and confirming the face validity of the instrument scale measurement as conducted by [38].

IV. RESULTS AND DISCUSSION

The path analysis along with multiple regressions is used with a causal theory, with the aim of describing the entire structure of linkages between independent and dependent variables posited by that theory [39]. According to the study conducted by [35] the present study explores the causal order among healthscape, service quality, and behavioral intentions as shown in figure 2. The multiple regression techniques can be used to determine the magnitude of direct and indirect influences that each variable has on other variables that follow it in the presumed causal order [39]. Thus, through regression techniques, the strength of each path can be estimated, and for the figure 2, it is apparent that the analysis requires two regression equations. Firstly, behavioral intentions is a dependent variable for service quality and healthscape; and secondly, treating service quality as a dependent variable for healthscape. The result generated from the first regression analysis is shown in the table 1 and the table 2, while for the second regression analysis is shown in the table 3 and the table 4 using SPSS 18.0.

The Beta values presented in the standardized coefficients column represent the standardized regression coefficients. The Beta value is found to be 0.232 between behavioral intention and service quality, while that among behavioral intention and healthscape is 0.443. To confirm that multicollinearity does not exist the tolerance values need to be greater than 0.1 and the VIF values should be less than 10 [39]. From the table 1, it is evident that there exists no multicollinearity in the predictor variables. The correlation coefficient (r) among the variables behavioral intensions, service quality and healthscape is found to be 0.596 as shown in the table 2, suggesting a strong correlation.

The Beta value is found to be 0.509 between and healthscape and service quality as shown in the table 3. The result generated from the first regression analysis is shown in the table 1 and the table 2, while for the second regression analysis is shown in the table 3 and the table 4 using SPSS 18.0.

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The results of the present study demonstrate that hypotheses H1, H2 and H3 are accepted. All the Beta values are positive signifying that there are direct relationships among the variables: healthscape, service quality and behavioral intention. The results indicate that healthscape exerts a stronger influence on behavioral intention than the overall service quality. Therefore it is evident that healthscape plays an important part in behavioral intention of the patient. The implication of the present study to the hospital managers is that the design of the physical setting is important in a hospital service setting too for the increased patronage and profits.

V. CONCLUSION

The completion among hospitals has increased due to the growth of number, mergers and acquisitions of hospitals in India. Therefore, hospitals need to take cognisance of these research findings to achieve supremacy in providing their services. Further studies are required to be conducted in different hospital settings to validate the findings of the present study.

REFERENCES


