The Healthscape as an Antecedent to Service Quality and Behavioral Intentions

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The demand for healthcare is increasing and thus service quality in a healthcare setting is being measured. This paper presents the relationship of healthscape on service quality and behavioral intentions using PLS-SEM.

1. Introduction

A service has been defined as, ‘any activity or benefit that one party can offer to another that is essentially intangible and does not result in the ownership of anything’ (P.Kotler, K.L.Keller, A.Koshy, M. Jha; 2013 p.322). The characteristics of services such as intangibility, inseparability, heterogeneity and perishability make services distinct when compared to goods (V.A. Zeithaml, A.Parasuraman, L.L.Berry; 1985). 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. During a consumer’s visit to a service outlet, the service environment is the first characteristic of the service that is perceived by the customer. This stage is important as the consumers are likely to form impressions of the level of service they would receive in the service outlet. It is said that the first impression is the best impression. It is identified that the customers see more and process more information than managers and service providers in the selection and usage of services (L.L.Berry, K.D. Seltman; 2008).

The importance of service environment was first recognized by Kotler (1973-74, p.61) who stated that the servicescape “may [in the future] become the chief form of competition”. Thus, Kotler initiated and declared the idea of the physical environment as an important part of the service experience. However, the researchers Booms and Bitner (1981) 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). The concept was further narrowed to healthcare facilities and coined the term ‘Healthscape’ (J.D.Hutton, L.D.Richardson; 1995).

The behavioral intention is defined as a signal of whether customers will remain or exit the relationship with the service provider (V.A.Zeithaml, L.L.Berry, A. Parasuraman; 1996). Though there are numerous definitions for behavioral intention defined by numerous researchers, the primary interest as recognized in the literature is that of predictor of the profitability of service firms (E.W.Anderson, C.Fornell, D.R. Lehmann; 1994; F.F.Reichheld, W.E. Sasser; 1990). It is incredible to note that both costs and revenue of firms are affected by repeat purchases, positive word-of-mouth recommendation, and customer feedback.

The service quality has gained a lot of attention after the SERVQUAL model (A. Parasuraman, V.A.Zeithaml, L.L.Berry; 1985, 1988). 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 researchers Y.P.Pai and S.T. Chary (2013) identified that different terminologies are used for stating ‘tangibles’ by various researchers for measuring hospital service quality from the patient’s perspective.

Although there are varieties of studies conducted to demonstrate the impact of servicescape on emotion, customer satisfaction (L.Johnson, K.J.Mayer, E.Champaner; 2004), service quality (R.Hightower, M.K. Brady, T.L.Baker; 2002), behavioral intention (L.C.Haris, C.Ezeh; 2008), there are limited studies conducted in the servicescape of healthcare i.e. healthscapes. From the literature it is found that most studies are conducted to explore the causal relationship among the constructs: service quality, satisfaction and behavioral intentions (G.C.Saha, Theingi; 2009, H.Qin, V.R.Prybutok; 2009). Studies have also identified the effect of hospital service quality on patient satisfaction and behavioral intentions (M.Amin, S.Z.Nasharuddin; 2013). However not much of work has been conducted on healthscape, one study have explored the impact of healthscape on service quality and behavioral intentions (Y.P.Pai and S.T.Chary; 2014). However, this present papers explores to identify the relationship among healthscape along with another dimension personnel quality on the overall service quality and behavioral intentions.

2. Focus of the Study

In the present times, 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. From the literature, it is identified that 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 (A.Reimer, R.Kuehn; 2005) whereas, researchers A.Parasuraman, V.A.Zeithaml, and L.L.Berry (1988) point out that the intangible factors were significantly more important than the tangible factor. Therefore the nature of this relationship is interesting to explore in healthcare. Recently, D.Hooper, J.Coughlan and M.R.Mullen (2013) explored the relationship among servicescape(S), employee service quality (ESQ), overall service quality
(OSQ) and behavioral intention (BI), as shown in figure 1. In the present study the healthscape is servicescape, as the study is in a hospital setting, and personnel quality signifying the employee service quality is considered in the framework as shown in the figure 2. Thus, the present study has applied similar framework of D.Hooper, J.Coughlan and M.R.Mullen (2013) in a healthcare context, as shown in the figure 2, exploring the relationship among healthscape (H), personnel quality (PQ), overall service quality (OSQ) and behavioral intentions (BI).

Figure 1 Relationship among Servicescape, Employee Service Quality, Overall Service Quality and Behavioral Intentions

Figure 2 Relationship among healthscape, Personnel Quality, overall Service Quality and Behavioral Intentions
Source: Authors

The following hypotheses reflect this supposition

H1. Healthscape perceptions will have a direct and positive effect on personnel quality.

H2. Healthscape perceptions will have a direct and positive effect on overall service quality.

H3. Personnel quality will have a direct and positive effect on overall service quality.

H4. Overall service quality will have a direct and positive impact on behavioral intentions.

H5. Healthscape perceptions will have a direct and positive effect on behavioral intentions.

3. Study Methodology

A questionnaire was developed in English that was pre-tested to arrive at appropriate format. A sample of 602 patients are the respondents for the present study, among those there are 300 inpatients and 302 outpatients. The respondents were chosen from 11 hospitals among different teaching, corporate and public hospitals from the districts of Karnataka State in India. There were 6 items for measuring healthscape, 8 items for measuring personnel quality, 4 items for measuring overall service quality and 7 items for measuring behavioral intentions which were considered from the previous study. All items were in statement form and were rated by respondents on five-point Likert scales from Strongly Disagree to Strongly Agree. 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 H.Arasli, E.E.Haklan, K.S.Turan (2008).

4. Results and Discussions

Data collected from respondents was analyzed with partial least squares structural equation modeling (PLS-SEM) using Smart PLS 2.0 M3 (C.M. Ringle, S.Wende, S.Will; 2005). In the present study we have reflective measurement models and assessment includes composite reliability, internal consistency, individual indicator data and average variance extracted to evaluate convergent validity and the Fornell-Lacker criterion and cross loadings to assess discriminant validity (J.F.Hair, G.T. M. Hult, C.M. Ringle, M.Sarstedt; 2014). Thus, in order to check the properties of the measurement scales, we assessed internal consistency reliability through Cronbach’s alpha and composite reliability; convergent validity through average variance extracted (AVE) as shown in table 1 and discriminant validity through the Fornell Lacker criterion as shown in Table 2. The results in the table 1 indicate that AVE and CR of all constructs are either equal to or exceed respectively 0.50 and 0.70 cut off values (J.F.Hair, G.T. M. Hult, C.M. Ringle, M.Sarstedt; 2014). Then, we ensured convergent validity, as all the PLS indicators load much higher on their hypothesized factor than on other factors (own loading are higher than cross loadings). In addition, in Table 2, we calculated the square root of the AVE that exceeds the inter correlations of the construct with the other constructs in the model in order to ensure discriminant validity (C. Fornell, D.F. Larcker; 1981). Thus, the measurement model was considered satisfactory with the evidence of adequate reliability, convergent validity and discriminant validity and was employed for hypothesis testing and research model validation.
Table 1  Psychometric Properties of the Constructs

<table>
<thead>
<tr>
<th>Constructs</th>
<th>AVE</th>
<th>CR</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthscape</td>
<td>0.5197</td>
<td>0.8655</td>
<td>0.8122</td>
</tr>
<tr>
<td>Personnel Quality</td>
<td>0.5003</td>
<td>0.8883</td>
<td>0.8556</td>
</tr>
<tr>
<td>Service Quality</td>
<td>0.7245</td>
<td>0.9130</td>
<td>0.8725</td>
</tr>
<tr>
<td>Behavioral Intentions</td>
<td>0.5870</td>
<td>0.9084</td>
<td>0.8821</td>
</tr>
</tbody>
</table>

Table 2  Inter Correlations of the Latent Variables

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Healthscape</th>
<th>Personnel Quality</th>
<th>Service Quality</th>
<th>Behavioral Intentions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthscape</td>
<td>0.721†</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Personnel Quality</td>
<td>0.6518</td>
<td>0.7073†</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Service Quality</td>
<td>0.4949</td>
<td>0.539</td>
<td>0.8512†</td>
<td>--</td>
</tr>
<tr>
<td>Behavioral Intentions</td>
<td>0.4324</td>
<td>0.5402</td>
<td>0.6523</td>
<td>0.7662†</td>
</tr>
</tbody>
</table>

†Square Root of the AVE on the Diagonal

Table 3  Results of Significance Testing of Structural Path Coefficients

<table>
<thead>
<tr>
<th>Path</th>
<th>Path Coefficients</th>
<th>t values</th>
<th>Significance levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthscape -&gt; Service Quality</td>
<td>0.2496</td>
<td>1.830</td>
<td>*</td>
</tr>
<tr>
<td>Healthscape -&gt; Personnel Quality</td>
<td>0.6518</td>
<td>7.251</td>
<td>***</td>
</tr>
<tr>
<td>Personnel Quality -&gt; Service Quality</td>
<td>0.3763</td>
<td>2.2995</td>
<td>**</td>
</tr>
<tr>
<td>Service Quality -&gt; Behavioral Intentions</td>
<td>0.5805</td>
<td>5.3658</td>
<td>***</td>
</tr>
<tr>
<td>Healthscape -&gt; Behavioral Intentions</td>
<td>0.1452</td>
<td>1.3411</td>
<td>NS</td>
</tr>
</tbody>
</table>

*p<0.10, **p<0.05, ***p<0.01

Thus the four hypothesis H1, H2, H3, H4 are supported in the present study. The hypothesis H5 is not supported.

5. References

3. L.L. Berry, K. D. Seltman (2008), Management lessons from Mayo Clinic, McGraw Hill Companies, USA.
23. C.M. Ringle, S. Wende, S. Will (2005), SmartPLS 2.0 (M3) Beta, Hamburg 2005.