SERVDIV, A VEDIC APPROACH TO MEASUREMENT OF SERVICE QUALITY: AN EMPIRICAL VALIDATION

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ABSTRACT

The purpose of this article is to empirically validate SERVDIV, a new instrument to measure service quality across industries. Vedic Philosophy maintains that there are three paths to attaining the Divine; Gyna Marga (path of knowledge), Karma Marga (path of action) and Bhakti Marga (path of devotion). A confirmatory factor analysis conducted based on data collected from 259 motel customers revealed three factors that were labelled as Actionable Knowledge, Perceptible Commitment and the Divinity Mile. These factors are a combination of the three paths envisaged by the Vedic Sages

Keywords: Service quality, SERVDIV, SERVQUAL.

INTRODUCTION

Today, the American economy is more services driven than perhaps it has been ever before. According to Statista a whopping 77.6% of the American GDP was derived from the service sector in 2021. The recent pandemic has been particularly disruptive for the service sector. The physical distancing requirements during the pandemic were clearly at odds with the perishability and inseparability characteristics of services (Parasuraman et al., 1991). Restaurants, for example, could only provide take-out services. K-12 and higher education institutions could only provide online instruction.

The situation has been steadily improving over the past two years, but the recovery has been slow. At the time of writing the spending on services was approximately 3% lower than what it would have been in the absence of the pandemic (Barnes et al., 2022). On the positive side, consumers now realize that many services can now be more conveniently, and cost effectively accessed via remote conferencing. Telemedicine has gained popularity among caregivers and receivers in the post pandemic era (Shaver, 2022).

In view of these trends, the measurement of service quality remains as important as ever. SERVQUAL developed by Parasuraman et al. (1991) and SERVPERF created by Cronin & Taylor (1992) remain the two most popularly used instruments to measure service quality in the industry today. The former uses the gap between customer expectations of service and the actual delivery of service by an establishment to assess service quality. The smaller the gap the higher is the perception of quality. The latter, however, relies exclusively on the performance aspect alone. Both these approaches either implicitly or explicitly include a baseline against which a customer compares the quality of service they receive for the purpose of evaluating it. In our opinion both these scales have their limitations. For repeat customers, the previous performance of a service provider is likely to drive customer expectations up a notch, making it harder on the provider to keep frequent visitors satisfied. SERVPERF attempts to correct the problem by relying only on the performance aspect and leaving customer expectations out of the picture altogether. In this scenario, customers are likely to gauge performance based on an undefined and unmeasured set of expectations that the service provider is left wondering about. In either scenario, the providers find themselves playing a cat and mouse type game with the customer, where they feel like the mouse.

Kelkar (2010) approached the issue of service quality measurement from the perspective of the Vedic Civilization that has existed on the Indian Subcontinent for millennia. This perspective maintains that a service provider should treat every customer/guest or "atithi" as the embodiment of the Divine when serving them. The "Divine" customer can be satisfied using three paths to be described shortly.

This ancient approach eliminates the need for an external human defined standard to measure service quality since a person or a company cannot do enough good to please the Divine which in this case is the patron of the establishment. The purpose of this paper is to empirically validate SERVDIV introduced by Kelkar (2010) in order to investigate whether the three paths as described by the Hindu sacred text Bhagvad Gita (BG) namely

1. Gyana-Marga (path of knowledge)
2. Karma-Marga (the path of action) and
3. Bhakti Marga (path of submission) can be operationalized using a traditional multiple item Likert type scale named here as the Service Divinity Scale, or SERVDIV for short.

An Overview of SERVDIV

SERVDIV stems from the ancient Vedic civilization that has flourished on the Indian Subcontinent or the contemporary nation states of Bangladesh, Bhutan, India, Pakistan and Sri Lanka for over six millennia. Much archaeological work has been done on this ancient tradition since its discovery by British archeologist Sir Robert Eric Mortimer Wheeler in the early decades of the last century (Wheeler, 1966). Some scholars today prefer to call it the Sindhu-Sarasvati Civilization (Rao, 2014). Kenoyer (2014) divides this civilization into four eras beginning with the Early Food Producing Era circa 7500 BCE to the Localization Era that began around 1500 BCE.

One of the most revered scriptures of this tradition is the Bhagvad Gita (BG). The BG prescribes three paths to enlightenment; gyana-marga (path of knowledge), karma-marga (path of action), and bhakti-marga (path of submission). Kelkar (2010) put forward the idea of measuring service quality by how well a service provider is walking on these paths in order to reach their goal of satisfying customers at a profit. The highest level of customer satisfaction can be attained if a service provider knows exactly what their consumers need, invests in people and facilities to meet these needs, and demonstrates an unwavering commitment to make the consumers happy. A Service Divinity Scale (SERVDIV) comprising 16 items appears in Table 1. The items have been divided into three categories as prescribed by the tradition and have been labelled as such.

Table 1 SERVICE DIVINITY SCALE (SERVDIV)	
Gyana-marga (path of knowledge) Items	
KNOW1	We know exactly what the customers want.
KNOW2	We regularly conduct studies to monitor customer needs.
KNOW3	We try to see the world from our customers' point of view.
KNOW4	Sometimes it is difficult to tell what our customers want (Reverse Coded).
KNOW5	All our employees, even those who do not come into direct contact with the customers, are aware that customer satisfaction is the goal.
KNOW6	Customers will come and go; the organization is forever (Reverse Coded).
Karma-marga (path of action) Items	
ACT1	We try to retain our customers even if it means taking a short-term loss.
ACT2	Our customers can always count on us to get what they want.
ACT3	We realize that all our service practices will not always meet approval from our customers.
ACT4	Our customers never seem to get enough service (Reverse Coded).
Bhakti-marga (path of submission) Items	
SUB1	Our organization exists because of our customers.
SUB2	The sole purpose of our existence is to serve our customers.
SUB3	Customer service is a passion for our organization.
SUB4	Our customers do not need to come to us to get what they want.
SUB5	Our goal is to become the #1 company in the industry (Reverse Coded).
SUB6	We are quick to change our target market if we realize that it is not profitable enough (Reverse Coded)

LITERATURE REVIEW

The United States is a services-based economy. The service sector contributed a whopping 77

Percent to the GDP in 2021. The extant literature extensively discusses the distinction between the marketing of products and services (Abernathy & Butler, 1992, Bitran & Lojo, 1993, Parasuraman et al., 1993; Zinkhan et al. 1992). SERVQUAL and SERVPERF, scales developed to measure service quality were developed by Parasuraman et al. (1991); Cronin & Taylor (1992) respectively. Parasuraman et al. (1991) have reassessed and refined their scales in response to the criticisms they received. Jain & Gupta (2004) concluded that SERVPERF is more robust across industries and should be used when comparing service quality across service sectors of the economy. SERQUAL is better suited when management is attempting to improve the quality of service their specific organization is providing. Thus, SERVPERF is a macro level scale and SERVQUAL is a micro level one according to Jain & Gupta (2004). To be sure these are not the only contenders in the arena of services quality measurement. Carr (2007) proposed FAIRSERV based on the organizational fairness theory as applied to the relationship between the service provider and receiver. This theory holds that consumers don't expect the best service but are more interested in seeing that the service provider of their choice is trying their level best under the circumstances of service provision. Based on a study of 421 studies at a state university in Turkey, Batraktaroglu & Atrek (2010) found that both SERQUAL and SERVPERF turned acceptable convergent validity scores using a five factor models however the SERVQUAL was deemed slightly better for the higher education sector than SERVPERF. Shafaei, Walberg, Taher (2016) compared both the weighted and unweighted versions of SERVQUAL and SERVPERF in the healthcare industry. Their results show a stronger support for the weighted performance-based scale SERVPERF.

METHODOLOGY

The hospitality industry was deemed the most suitable for an empirical validation of SERVDIV. Customers spend at least one night at these establishments. Many hotels refer to their customers as "*guests*". For instance, the mission statement of Crowne Plaza states in part:

"To become the greatest company in the world by expressing great employee values, good work ethic, and excellence. To create hotels **guests** truly love (emphasis added). "The sixteen items in Table 1 were used to generate the following 19 items suitable for the hospitality industry (Table 2).

Table 2 SERVICE DIVINITY SCALE (SERVDIV)	
Gyana-marga (path of knowledge) Items	
KNOW1	The employees at the hotel I stayed in knew exactly what I wanted.
KNOW2	The hotel I (we) stayed in sends me (us) promotional offers that fit my (our) lifestyle well.
KNOW3	The hotel management seemed to care about what I thought about them as a business.
KNOW4	The hotel offered many services and amenities that I did not really need but had to pay for them.
KNOW5	Every employee at the hotel seemed eager to help me even if it looked like it was not a part of their job.
KNOW6	The promotional materials I received at the hotel put an excessive emphasis on the awards and honors they had received.
Karma-marga (path of action) Items	
ACT1	All the charges on my bill appeared legitimate.
ACT2	I was easily able to get a refund for a charge on my bill that I thought should never have been there.
ACT3	The hotel employees were quick to apologize if I thought they had made a mistake.
ACT4	The hotel employees thought I was too demanding and picky. (Reverse Coded)
ACT5	Someone picked up the phone right away every time I called the front desk.
ACT6	I had to ask several employees to get what I wanted.
Bhakti-marga (path of submission) Items	
SUB1	The employees seem to realize that they will not have a job if I do not visit the hotel again.
SUB2	I felt that I was the most important customer staying at the hotel.
SUB3	The hotel employees seemed passionate about what they were doing.
SUB4	I felt like the employees were there just because they were getting paid.
SUB5	The employees seem to realize that I could have stayed at another hotel in the area.
SUB6	I felt like the hotel employees were always waiting expectantly to receive tips.
SUB7	The hotel employees candidly admitted that they were not equipped to provide a service or an item I had asked for.

Data was collected over a three-day period using Survey Monkey. Respondents were asked if they had spent at least one night at a hotel in the last three years. Additional demographic questions such as gender, age, ethnicity and travel size of the respondent's party were included for classification purposes. Respondents were requested to indicate their level of agreement on each of the 19 items on a 5-point Likert Scale ranging from 1=Strongly Disagree to 5=Strongly Agree. 259 usable responses were received.

RESULTS

Sample Demographics

259 usable survey responses were delivered by Survey Monkey. The demographic profile of the respondents is a shown in Tables 3-6.

Table 3 GENDER		
	Frequency	Percent
Refuse to Answer	10	3.8
Female	138	53.1
Transgender	8	3.1
Male	103	40
Total	259	100[1]

Table 4 AGE			
	Frequency	Percent	Cumulative Percent
Refuse to Answer	3	1.2	1.2
18-24	27	10.4	11.6
25-34	61	23.5	35.1
35-44	44	16.9	52.1
45-54	63	24.2	76.4
55-64	39	15	91.5
65 and Over	22	8.5	100
Total	259	100	

Table 5 ETHNICITY		
	Frequency	Percent
Refuse to Answer	18	6.9
Asian	33	12.7
Native American	4	1.5
Caucasian	159	61.2
African American	10	3.8
Hispanic	34	13.1
Asian Indian	1	0.4
Total	259	100

Table 6 INCOME PROFILE			
	Frequency	Percent	Cumulative Percent
$0-$9,999	22	8.5	8.5
$10,000-$24,999	37	14.2	22.8
$25,000-$49,999	42	16.2	39
$50,000-$74,999	44	16.9	56
$75,000-$99,999	35	13.5	69.5
$100,000-$124,999	31	11.9	81.5

$125,000-$149,999	10	3.8	85.3
$150,000-$174,999	13	5	90.3
$175,000-$199,999	3	1.2	91.5
$200,000+	12	4.6	96.1
Prefer not to answer	10	3.8	100
Total	259	100	

SERVDIV Scale Items

The basic descriptive statistics for the 19 SERVDIV items appear in Table 7.

Table 7 SERVDIV SCALE ITEMS DESCRIPTIVE STATISTICS	Mean	Std. Deviation
All the charges on my bill appeared legitimate (ACT1).	3.8571	0.97192
Someone picked up the phone right away every time I called the front desk (ACT5)	3.583	0.98233
The hotel management seemed to care about what I thought about them as a business (KNOW3)	3.5521	1.04556
The employees at the hotel I stayed in knew exactly what I wanted (KNOW1)	3.5212	0.94957
The hotel employees were quick to apologize if I thought they had made a mistake (ACT3).	3.3977	0.94014
The employees seem to realize that I could have stayed at another hotel in the area (SUB5).	3.3398	1.03822
I was easily able to get a refund for a charge on my bill that I thought should never have been there (ACT2).	3.3205	0.92006
The hotel employees seemed passionate about what they were doing (SUB3)	3.2857	1.11518
The hotel I (we) stayed in sends me (us) promotional offers that fit my (our) lifestyle well (KNOW2).	3.1351	1.0716
The hotel offered many services and amenities that I did not really need but had to pay for them. (KNOW4)	3.0965	1.10072
The promotional materials I received at the hotel put an excessive emphasis on the awards and honors they had received. (KNOW6)	3.0386	1.02604
I felt like the employees were there just because they were getting paid. (SUB4)	3.0193	1.14611
I felt that I was the most important customer staying at the hotel. (SUB2).	2.9614	1.15741
I had to ask several employees to get what I wanted. (ACT6)	2.8301	1.21446
The employees seem to realize that they will not have a job if I do not visit the hotel again (SUB1).	2.8185	1.10051
I felt like the hotel employees were always waiting expectantly to receive tips (SUB6)	2.7645	1.11131
Every employee at the hotel seemed eager to help me even if it looked like it was not a part of their job (KNOW5).	2.7066	1.0633
The hotel employees candidly admitted that they were not equipped to provide a service or an item I had asked for (SUB7).	2.6834	1.03061
The hotel employees thought I was too demanding and picky. (ACT4)	2.3977	1.13445

19 scale items in Table 7 were subjected to principal components factor analysis with a varimax rotation and Eigen value of 1. Three factors emerged as shown in Table 8. Factor loadings of less than 0.4 have been suppressed.

Table 8 ROTATED COMPONENT MATRIX[AB]			
Component	1	2	3
KNOW1	0.708		
ACT5	0.707		
SUB5	0.688		
ACT3	0.636		
KNOW3	0.606		0.502
ACT1	0.594		
KNOW6	0.477	0.428	
ACT2	0.446		
ACT4		0.827	
ACT6		0.795	

SUB6		0.712	
SUB7		0.704	
SUB1		0.638	
KNOW4		0.589	
SUB3	0.426		0.737
KNOW2			0.674
SUB2	0.445		0.588
SUB4			0.583

Note. Extraction Method: Principal Component.

Rotation Method: Varimax with Kaiser Normalization.

a.   Rotation converged in 4 iterations.
b.   Loadings under 0.4 have been suppressed

The scale item KNOW5 eliminated itself indicating that hotel guests responding to the survey were generally fair in their assessment of their host and did not expect the hospitality employees to go above and beyond their call of duty (Botha, 2018); Tajpour & Razavi (2023).

Three factors did emerge from the confirmatory factory analysis of SERVDIV items. However, they did not neatly align with the three paths of knowledge, action and submission as conceived by the BG. An examination of Table 9 reveals that 3 submission items neatly converge under a single factor, but the other two factors are mix and match of the three paths. After a careful analysis of which items loaded together, the three factors emerging from the principal components factor analysis were labelled as Actionable Knowledge, Perceptible Commitment, and The Divinity Mile (Table 9).

Table 9 SERVICE DIVINITY SCALE (SERVDIV)	
Actionable Knowledge	
KNOW1	The employees at the hotel I stayed in knew exactly what I wanted.
ACT5	Someone picked up the phone right away every time I called the front desk.
ACT3	The hotel employees were quick to apologize if I thought they had made a mistake.
SUB5	The employees seem to realize that I could have stayed at another hotel in the area.
KNOW3	The hotel management seemed to care about what I thought about them as a business.
ACT1	All the charges on my bill appeared legitimate.
ACT2	I was easily able to get a refund for a charge on my bill that I thought should never have been there.
KNOW6	The promotional materials I received at the hotel put an excessive emphasis on the awards and honors they had received. (Reverse Coded)
Perceptible Commitment	
ACT4	The hotel employees thought I was too demanding and picky. (Reverse Coded)
ACT6	I had to ask several employees to get what I wanted. (Reverse Coded)
SUB6	I felt like the hotel employees were always waiting expectantly to receive tips. (Reverse Coded)
SUB7	The hotel employees candidly admitted that they were not equipped to provide a service or an item I had asked for.
SUB1	The employees seem to realize that they will not have a job if I do not visit the hotel again.
KNOW4	The hotel offered many services and amenities that I did not really need but had to pay for them. (Reverse coded)
The Divinity Mile	
SUB3	The hotel employees seemed passionate about what they were doing.
SUB2	I felt that I was the most important customer staying at the hotel.
KNOW2	The hotel I (we) stayed in sends me (us) promotional offers that fit my (our) lifestyle well.
SUB4	I felt like the employees were there just because they were getting paid. (Reverse Coded)

The inter-item reliability scores of each of the three factors are at an acceptable level as seen below Table 10.

Table 10
INTERITEM RELIABILITY MEASURES

Factor	Number of Items	Cronbach Alpha
Actionable Knowledge	8	0.831
Perceptible Commitment	6	0.823
The Divinity Mile	4	0.746

CONCLUSIONS AND SUGGESTIONS FOR FURTHER RESEARCH

Comparing the three factors in to the three paths described in the BG, gyana-marga (path of knowledge), karma-marga (path of action), and bhakti-marga (path of submission), Actionable Knowledge can be seen as a combination of "path of knowledge" and the "path of action." Guests are unlikely to be swayed only by lofty mission statements of customer orientation. They want to see it implemented on site. The second factor Perceptible Commitment appears to be a combination of "path of knowledge" and "path of submission." The guests expect the hotel employees to anticipate their needs and wants and have them fulfilled right away with a sense of gratitude and selflessness as a part of the establishment. They also expect complete transparency from the employees and are aiming to maximize the value of their dollars. The third factor, "The Divinity Mile" aligns well with the "path of submission." The hospitality industry needs to adopt the principles of conscious capitalism rather than merely cutting costs and maximizing shareholder value.

Family-owned hotels are an important part of the hospitality industry. Travelers are looking for a home away from home, and often prefer smaller establishments to large glitzy but impersonal hotel conglomerates. Based on a study of 375 employs in 101 Iranian international digital starts ups, found that emotional commitment, complete transparency within the organization, and fostering a cultural of continuous innovation are key determinants of success.   In a related study, expanded their research framework to include the concept of social capital and stressed the importance of drawing on it to build cohesiveness within the organization to put these startups on a path to success in an Iranian context. We believe that the findings of these studies can be extended to the motel industry because American highways are dotted by off road motels owned and operated by families. Since SERVDIV eliminates an external standard for service quality, social capital as embodied by family members' commitment to customer service is important to success in the motel business as well. Social capital is especially important for performance on the third dimension of SERVDIV, namely the Divinity Mile. Family-owned businesses have a natural edge on this dimension over multimillion dollar hotel chains. The extent to which a family-owned motel draws on social capital and its impact on performance on the above detailed SERVDIV dimensions remains a fruitful avenue for further research.

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