

## 澳門娛樂場服務素質對比研究

~~Coaching for customer service coaches in casinos in Macau~~

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### What is Service Quality?

In many aspects service is different from product. Service is every act, performance or operation that someone can deliver to someone else, which may not result in the possession of any tangible good. Most services have high human aspect content, making them difficult to standardize. Service can be defined as an activity or series of activities of more or less intangible nature that normally take place in interactions between the customers and service employees and/or physical resources or goods and/or systems of the service provider, which are provided as solutions to customer problems (Siu et al., 2001). In service transactions, the raw material being converted to service output depends, to a great extent, on the facts and information furnished by the customers who play a crucial role in influencing the outcome of the transformation process as well (Sureshchandar et al., 2001). Quality is related to the fitness of a service or product to its intended purpose or use, subject to the expectations of the customer. Most services consist of acts and interactions, which are social events. The control and management of social events require certain special skills and techniques. Costa et al. (2004) suggest that quality is the totality of qualities and attributes of a product or activity, regarding the ability to meet customer requirements.

Service quality reflects the extent to which a service meets customers' needs or expectations. It is person dependent and has different meanings for different people. Most definitions of service quality are customer-oriented, with customer satisfaction being seen as functions of perceived quality, or perceived quality being a function of customer satisfaction. Service quality, as perceived by customers, involves a comparison of what they feel the service should be (expectation, E) with their judgment of the services they received (perceptions, P). Service quality is the difference between customer expectations of service and perceived service. If customer expectations are greater than performance perceived, then customer becomes dissatisfied (Sahney et al., 2006; Al-Tamimi et al., 2003). Alternatively, service quality is the extent and direction of discrepancy between consumers' perception and expectations in terms of different but relatively important dimensions of the service quality which can affect their future behavior (Prabhakaran et al., 2003). Service plays an important role in providing value, and drives a company's success. Quality is not a singular but a multi-dimensional phenomenon (Marković, 2006). Quality in a service context is a measure of the degree to which the service delivered meets the customer's expectations. Service quality is a measure of how well the service level delivered matches customer expectations. Customer expectations are formed by word-of-mouth communications, personal needs, past experience, and what and how the employees of service provider communicates to the customer (Pakdil et al., 2005).

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Quality service helps customers define their needs, clarify benefits, build confidence and monitor and assess the organization and the impact of its services (Sahney et al., 2006). Services have many unique characteristics, i.e. (a) intangibility; (b) heterogeneity; (c) inseparability of production and consumption; (d) involvement with customer in delivery process and (e) perishability (Lau et al., 2005; Costa et al., 2004; Marković, 2006; Prabhakaran et al., 2003). According to Lau et al. (2005) service quality is crucial to the success of any service organization. When customers participate in the production and consumption of services, they interact closely with various aspects of the organization. This interaction enables customers to assess critically the services received, by comparing the service they get with the service they expect. Service quality plays a critical role in adding value to the overall service experience. Satisfaction is a judgment that a product or service feature provides a pleasurable level of consumption-related fulfillment. Satisfaction is a broader concept than service quality. It includes both cognitive and affective evaluations, while service quality evaluations are mainly a cognitive procedure.

**According to Prabhakaran and Satya (2003), customers become dissatisfied:**

1. When the service provider is not aware of the service dimensions, which is important to its customers.
2. When the service provider does not know the importance given by the customer to each of the service dimension.
3. When the service provider does not know the exact attributes, which make up the service dimensions.

**Measurement of Service Quality (SERVQUAL)**

The SERVQUAL approach to measure service quality has become more and more popular. SERVQUAL assumes that the level of service quality experienced by customers is determined by the gaps between their expectations of the service and their perceptions of what they actually receive from a specific service provider. There are five dimensions (with RATER as acronym) of service (Parasuraman, Zeithaml, and Berry, 1988; Donnelly and Shiu, 1999; Siu et al., 2001; Al-Tamimi et al., 2003; Wu et al., 2004; Marković, 2006; Sahu, 2006):

- Reliability is the ability to perform the promised service dependably and accurately
- Assurance refers to the knowledge and courtesy of employees and their ability to convey trust and confidence
- Tangibles refers to the appearance of physical facilities, equipment, personnel and communication materials Empathy refers to the level of caring and individualized attention the service provider extended to its customers.
- Responsiveness is the willingness of service provider to help customers and provide prompt service

As a measurement instrument, the SERVQUAL questionnaire consists of 22 parallel statements related to expectations (E) and perceptions (P) of the five service quality dimensions discussed above. Customers select a response using a 7-point Likert scale – ranging from 7 i.e. strongly agree to 1, i.e. strongly disagree, to indicate their feelings with regard to each statement. This construct enables the computation of difference scores for each dimension. The difference score ( $P - E = Q$ ), is a measure of the customer's perception of service quality (Q). Where Q is a negative number, a service gap exists; when Q is positive, customer expectations are being

exceeded. The use of gaps (difference scores) is used by many researchers with mixed results. (Bearden et al., 1993; Barnes et al., 2005; Gounaris, 2005; Kuo et al., 2005; Lee et al., 2004; Kuo, 2003; Sohn et al., 2002; Coulthard, 2004). Measuring expectations and perceptions separately allows managers to better understand the dynamics of customers' assessments of service quality over time. According to Parasuraman et al., (1993), the expectations component of SERVQUAL is a general measure and pertains to customers' normative standards i.e., the service levels customers believe excellent companies in a sector must deliver. The perceptions component pertains to customers' perceptions of a given firm's service within the sector. Measuring expectations and perceptions separately can diagnose service shortfalls accurately and explain the variance in related service variables.

### **Importance of Service Quality for casinos in Macau**

There were 30 casinos operating and competing in Macau by end of second quarter, 2008. The gaming market has grown from less than 400 gaming tables and 1,000 slot machines prior the liberalization of the industry to 4277 gaming tables and 12956 slot machines by end Jun, 2008 (<http://www.dicj.gov.mo/EN/Estat/DadosEstat/2008/estat.htm#n4>). The more than 10-fold increase in capacity within a short time frame of five years creates a turbulent and dynamic market scenario. Despite the brake being applied to the Facilitated Individual Traveling Scheme (FIT) for Chinese patrons coming to Macau since May, 2008, the gaming revenue is still growing at a double digit rate. Competition is definitely getting tougher and tougher. Apart from improving the complimentary to the patrons, running more frequent casino coaches, offering free drinks and food more generously, providing free entertainment shows, casino operators are revamping the casino atmospherics through building bigger and more appealing premises. All these measures are costly and are eroding into the profit margins of the casinos. Since every casino operator is taking similar measures in improving commissions/comps and facilities, the effects are becoming marginal. All casino operators have to serve their customers better than their competitors in order to survive and prosper. One vital aspect that is important for all casinos is service quality. The service providers need to gauge the service level continuously.

### **The revised Contrast SERVQUAL questionnaire**

Before any improvement on service quality can be made we need to measure it effectively. Without a systematic and scientific approach to measure service quality, it would be difficult to improve and manage service. A revised version of SEVQUAL questionnaire is used in this empirical longitudinal study. The research findings will provide useful insight to the gaming industry in Macau and to the individual casinos in facilitating their improvement effort in service quality. In order to maintain as the world's leading casino city, Macau has to provide first class customer service to its existing and potential customers. The approach of contrasting the "best" versus the "worst" service providers in the SERVQUAL questionnaire can be generalized to a much wider context.

The Contrast SERVQUAL (see Appendix) adopts the 22-item questionnaire. The respondents are asked to indicate their perceived "best" casino and the "worst" casinos in Macau. The listing for the perceived "best" and "worst" casinos is useful. Whatever the customers perceived, though subjective in nature, is reality from their perspective. Service providers should never underestimate or ignore subjective perception from customers. In this

paper the identities of the perceived best and the perceived worst casinos are not disclosed. The best and worst casinos are aggregated together as two distinct service provider groups and then their customer satisfaction levels are compared. For each of the 30 questions used in the revised Contrast SERVQUAL questionnaire (i.e. 22 service quality items from the traditional SERVQUAL questionnaire and eight additional Macau casino specific questions), the respondents are asked to rate subjectively their opinion on the importance scores (i.e. Expectations); the satisfaction scores (i.e. Perceptions) of the perceived “best” and “worst” casinos respectively. An overall satisfaction level is added respectively for the best and worst casinos. With this modification, this instrument can provide much more information and opportunities to analyze the service quality of the casinos in Macau. The five service quality dimensions are same as in the original SERVQUAL questionnaire i.e. Tangibles (questions 1 to 4); Reliability (questions 5 to 9); Responsiveness (questions 10 to 13); Assurance (questions 14 to 17); Empathy (questions 18 to 22). As the questionnaire is completed by the respondents on an anonymous basis, some personal data (e.g. gender; age, working experience; whether currently working in a casino; number of casinos visited during the last 12 months) are collected for further analyses. The contrast SERVQUAL was translated into Chinese for the local respondents and it was pilot tested with a group of eight respondents to ensure the wordings used are understandable. The time required to fill in the contrast SERVQUAL is about 12 minutes which is acceptable to most respondents. Although the Likert scale from 1 to 7 (the higher the scores the more important and more satisfied the respondents feel towards that particular question item) used in this study is ordinal (discrete data) in nature, the scores are computed as if they were continuous data. Test for data normality is not done because the central limit theorem states that the sum of a large number of [independent random variables](http://en.wikipedia.org/wiki/Central_limit_theorem) each with finite mean and variance will be approximately [normally distributed](http://en.wikipedia.org/wiki/Central_limit_theorem) ([http://en.wikipedia.org/wiki/Central\\_limit\\_theorem](http://en.wikipedia.org/wiki/Central_limit_theorem)).

The nomenclature for the variables of this extended contrast SERVQUAL are listed as below (with XX representing the corresponding SERVQUAL (referring to items 1 to 22) and casino specific items (referring to items 23 to 30)):

- SQL\_XX** SERVQUAL and casino specific Importance scores
- BSQS\_XX** Perceived best casinos SERVQUAL and casino specific Satisfaction scores
- WSQS\_XX** Perceived worst casinos SERVQUAL and casino specific Satisfaction scores
- Bgap\_XX** Gaps (i.e. Importance – Satisfaction) SERVQUAL and casino specific items for best casinos
- Wgap\_XX** Gaps (i.e. Importance – Satisfaction) SERVQUAL and casino specific items for worst casinos
- BWPG\_XX** Difference of Satisfaction scores (i.e. Performance Gaps) SERVQUAL and casino specific items between the perceived best and worst casinos

### **Results of the Contrast SERVQUAL surveys on Casinos in Macau**

There are two rounds of study comprising of a total of 241 respondents in the 2007 sample and 318 respondents in the 2008 sample respectively. They were selected by convenience sampling approach from students from three universities in Macau and casino employees. Many of the respondents may not have visited all 31 casinos in Macau and yet they were asked

to rate the best and worst casinos in Macau by decentring into the positions of customers. Bearing in mind with this survey design constraint (i.e. most of the respondents are not genuine casino customers), this longitudinal trend study still provides much useful insight on the quality service situation in Macau. From Tables 1 to 4, the cross-tabulation comparison suggests that the demographic characteristics (i.e. gender, age, working experience, and whether they are working in casinos) of respondents of both rounds of surveys are similar.

**Table 1: D1 Gender \* Round Crosstabulation**

		Round		Total
		2007	2008	
D1 Gender	1.00 Male	109	165	274
	2.00 Female	131	151	282
Total		240	316	556

**Table 2: D2 Age group \* Round Crosstabulation**

			Round		Total
			2007	2008	
D2 Age group	1.00	Under 21 years	35	18	53
	2.00	21-30 years	161	187	348
	3.00	31-40 years	37	35	72
	4.00	41-50 years	4	37	41
	5.00	Over 50 years	2	40	42
Total			239	317	556

**Table 3: D3 Working experience \* Round Crosstabulation**

			Round		Total
			2007	2008	
D3 Working experience	1.00	Under 1 year	35	74	109
	2.00	1-10 years	160	137	297
	3.00	11-20 years	36	27	63
	4.00	Over 20 years	6	61	67
Total			237	299	536

**Table 4: D4 Curently working in casino? \* Round Crosstabulation**

			Round		Total
			2007	2008	
D4 Curently working in casino?	1.00	Yes	99	105	204
	2.00	No	140	152	292
Total			239	257	496

Table 5 below compares the importance scores of the 22 traditional SERVQUAL attributes in the two rounds of study in 2007 and 2008 respectively. The top five perceived most important service attributes are bolded and the five perceived least important service attributes are in italic. All 22 SERVQUAL items have means values exceeding the neutral value of “4” , implying they are all perceived to be important by all 559 respondents.

**Table 5: Listing of SERVQUAL importance scores in descending order**

	Round 2007	Round 2008	Total
<i>sqi_16</i> Their employees are polite	<b>6.28</b>	<b>6.18</b>	<b>6.23</b>
<i>sqi_5</i> They can comply with promise to do something on time	<b>6.07</b>	<b>6.11</b>	<b>6.09</b>
<i>sqi_1</i> They have up-to-date equipment	<b>5.94</b>	<b>5.98</b>	<b>5.96</b>
<i>sqi_8</i> They provide services at the time they promise to do so	<b>5.91</b>	<b>5.96</b>	<b>5.94</b>
<i>sqi_4</i> Physical facilities keep with type of services provided	<b>5.85</b>	5.94	<b>5.90</b>
<i>sqi_11</i> Customers can get prompt services from their employees	5.83	5.94	5.89
<i>sqi_2</i> Their physical facilities are visually appealing	5.81	<b>5.95</b>	5.89
<i>sqi_12</i> Their employees are willing to help customers	5.82	5.89	5.86
<i>sqi_15</i> Customers feel safe in their transactions with their employees	5.73	5.84	5.79
<i>sqi_6</i> They are sympathetic and reassuring to customers who have problems	5.63	5.83	5.74
<i>sqi_13</i> Even their employees are busy, they respond to customers requests promptly	5.66	5.75	5.71
<i>sqi_22</i> They operate hours convenient to all their customers	5.81	5.64	5.71
<i>sqi_7</i> They are dependable	5.64	5.72	5.69
<i>sqi_9</i> They keep their records accurately	5.62	5.73	5.68
<i>sqi_14</i> Customers can trust their employees	5.58	5.70	5.65
<i>sqi_3</i> Their employees are well dressed and appear neat	5.62	5.58	5.60
<i>sqi_20</i> Their employees know the needs of customers	5.63	<i>5.48</i>	5.55
<i>sqi_17</i> Their employees get adequate support from the company to do their jobs well	<i>5.48</i>	<i>5.57</i>	<i>5.53</i>
<i>sqi_21</i> The company has their customers' best interest at heart	<i>5.57</i>	<i>5.41</i>	<i>5.48</i>
<i>sqi_10</i> They tell customers exactly when services will be performed	<i>5.24</i>	<i>5.56</i>	<i>5.42</i>
<i>sqi_19</i> Their employees can give customers personal attention	<i>5.44</i>	<i>5.33</i>	<i>5.38</i>
<i>sqi_18</i> The company can give customers individual attention	<i>5.22</i>	<i>5.14</i>	<i>5.18</i>

**The overall perceived most important service attributes are:**

- sqi\_16* Their employees are polite
- sqi\_5* They can comply with promise to do something on time
- sqi\_1* They have up-to-date equipment
- sqi\_8* They provide services at the time they promise to do so
- sqi\_4* Physical facilities keep with type of services provided

**The overall perceived least important service attributes are:**

- sqi\_17* Their employees get adequate support from the company to do their jobs well
- sqi\_21* The company has their customers' best interest at heart
- sqi\_10* They tell customers exactly when services will be performed
- sqi\_19* Their employees can give customers personal attention
- sqi\_18* The company can give customers individual attention

Table 6 below depicts the perceived performance of the “best” casinos in Macau. The best performed items are bolded and the least well performed are italicized. Overall speaking the respondents are satisfied (i.e. with means values exceeding the neutral value of “4” ) with all 22 SERVQUAL items.

**Table 6: Listing of SERVQUAL perceived satisfaction scores for best casinos in descending order**

	Round 2007	Round 2008	Total
bsqs_1 They have up-to-date equipment	<b>5.86</b>	<b>5.90</b>	<b>5.88</b>
bsqs_2 Their physical facilities are visually appealing	<b>5.78</b>	<b>5.82</b>	<b>5.80</b>
boverall Overall satisfaction for Best Casino	<b>5.84</b>	<b>5.76</b>	<b>5.80</b>
bsqs_22 They operate hours convenient to all their customers	<b>5.90</b>	5.57	<b>5.72</b>
bsqs_16 Their employees are polite	<b>5.74</b>	<b>5.67</b>	<b>5.70</b>
bsqs_3 Their employees are well dressed and appear neat	5.56	<b>5.69</b>	5.63
bsqs_4 Physical facilities keep with type of services provided	5.32	5.51	5.43
bsqs_12 Their employees are willing to help customers	5.31	5.36	5.34
bsqs_11 Customers can get prompt services from their employees	5.30	5.36	5.33
bsqs_15 Customers feel safe in their transactions with their employees	5.17	5.37	5.28
bsqs_5 They can comply with promise to do something on time	5.18	5.25	5.22
bsqs_9 They keep their records accurately	5.15	5.25	5.21
bsqs_17 Their employees get adequate support from the company to do their jobs we	5.09	5.30	5.21
bsqs_8 They provide services at the time they promise to do so	5.18	5.22	5.20
bsqs_14 Customers can trust their employees	5.11	5.21	5.17
bsqs_13 Even their employees are busy, they respond to customers requests promptly	5.01	5.19	5.11
bsqs_10 They tell customers exactly when services will be performed	<i>4.94</i>	5.21	5.09
bsqs_19 Their employees can give customers personal attention	5.08	<i>5.09</i>	5.09
bsqs_7 They are dependable	<i>4.98</i>	<i>5.11</i>	<i>5.05</i>
bsqs_20 Their employees know the needs of customers	<i>5.00</i>	<i>5.08</i>	<i>5.05</i>
bsqs_18 The company can give customers individual attention	5.05	<i>5.01</i>	<i>5.03</i>
bsqs_6 They are sympathetic and reassuring to customers who have problems	<i>4.86</i>	5.12	<i>5.00</i>
bsqs_21 The company has their customers' best interest at heart	<i>4.85</i>	<i>4.99</i>	<i>4.92</i>

The perceived best casinos have satisfaction scores all exceeding the neutral value of “4” . The respondents are most satisfied with their up-to-date equipment and appealing equipment, and staff politeness.

**The most satisfied items with the ‘best’ casinos are:**

- Having up-to-date equipment
- Appealing physical facilities
- Convenient operating hours
- Politeness
- Well dressed employees

It is interest to note that the satisfaction score for ‘Convenient operating hours’ is 5.72 which is significantly higher than that of the perceived worst casino. In Macau all casinos are operating 24 hours a day. Theoretically speaking the satisfaction scores for this particular service item for the best and worst casinos should be similar.

**Table 7: Listing of SERVQUAL perceived satisfaction scores for worst casinos in descending order**

	Round 2007	Round 2008	Total
wsqs_22 They operate hours convenient to all their customers	<b>4.98</b>	<b>4.45</b>	<b>4.69</b>
wsqs_3 Their employees are well dressed and appear neat	<b>3.72</b>	<b>4.03</b>	<b>3.89</b>
wsqs_9 They keep their records accurately	<b>3.82</b>	<b>3.90</b>	<b>3.86</b>
wsqs_15 Customers feel safe in their transactions with their employees	<b>3.65</b>	<b>3.82</b>	<b>3.74</b>
wsqs_4 Physical facilities keep with type of services provided	<b>3.58</b>	3.76	<b>3.68</b>
wsqs_1 They have up-to-date equipment	3.38	<b>3.88</b>	3.65
wsqs_17 Their employees get adequate support from the company to do their jobs well	3.54	3.71	3.63
wsqs_7 They are dependable	3.52	3.71	3.63
wsqs_8 They provide services at the time they promise to do so	3.54	3.64	3.59
wsqs_5 They can comply with promise to do something on time	3.48	3.68	3.59
wsqs_14 Customers can trust their employees	3.42	3.71	3.58
wsqs_21 The company has their customers' best interest at heart	3.34	3.75	3.56
wsqs_10 They tell customers exactly when services will be performed	3.40	3.69	3.56
wsqs_2 Their physical facilities are visually appealing	3.30	3.69	3.52
wsqs_18 The company can give customers individual attention	3.33	3.66	3.51
wsqs_11 Customers can get prompt services from their employees	3.35	3.60	3.48
wsqs_6 They are sympathetic and reassuring to customers who have problems	3.28	3.57	3.44
wsqs_19 Their employees can give customers personal attention	3.30	3.54	3.43
wsqs_13 Even their employees are busy, they respond to customers requests promptly	3.28	3.48	3.39
wsqs_16 Their employees are polite	3.17	3.56	3.38
wsqs_20 Their employees know the needs of customers	3.25	3.48	3.37
woverall Overall satisfaction for Worst Casino	3.19	3.53	3.36
wsqs_12 Their employees are willing to help customers	3.18	3.50	3.36

Except for the operating hours of the perceived “worst” casinos, the 559 respondents rated them unsatisfactory. It is pointed out earlier that although all casinos in Macau are open 24 hours a day, the means scores for the worst casino is only 4.69 (cf. 5.72 for the perceived best casinos) i.e. 1.03 lower. This difference is probably due to psychological effect among the respondents that worst casinos are bad in all aspects despite the objective fact that the operating hours are identical for all casinos in Macau. In order to mitigate the possible bias caused by respondents’ halo effect, the means scores for the worst casino should be adjusted by increasing by a magnitude of “1.03”. Looking at the bottom part of Table 7, the worst performed service items are all related to employee attitude e.g. willingness to help customers, knowing the customer needs, being polite, responding to customer request promptly, and giving personal attention to customers.

In order to discern significant changes between the two rounds of surveys, independent samples T-tests are performed on the importance SERVQUAL items; satisfaction scores for the perceived “best” and “worst” casinos. Table 8 below summarizes all items with differences in means significant at 0.05 level. Prima facie evidences from the T-test suggest that as far as importance scores and satisfaction scores for the best casinos are concerned the difference between respondents scores in 2007 and 2008 are mostly insignificant at 0.05 level. On the other hand it is obvious from the T-test that most SERVQUAL items for the perceived “worst” casinos have shown significant improvements at 0.05 level. The reasons are perhaps



due to the continuous renovation made by some of the older casinos and the effort that these less well performed casinos have invested in improving the quality service of their frontline personnel. This improvement trend in this longitudinal study is healthy for the gaming industry in Macau.

**Table 8: Items significant at 0.05 level between 2007 and 2008**

	Round	Statistics	
		N	Mean
sqi_6 They are sympathetic and reassuring to customers who have problems	1.00 2007	240	5.6250
	2.00 2008	317	5.8265
sqi_10 They tell customers exactly when services will be performed	1.00 2007	240	5.2417
	2.00 2008	317	5.5552
bsqs_4 Physical facilities keep with type of services provided	1.00 2007	241	5.3195
	2.00 2008	304	5.5099
bsqs_10 They tell customers exactly when services will be performed	1.00 2007	241	4.9419
	2.00 2008	304	5.2138
bsqs_17 Their employees get adequate support from the company to do their jobs well	1.00 2007	241	5.0913
	2.00 2008	304	5.2993
bsqs_22 They operate hours convenient to all their customers	1.00 2007	241	5.9046
	2.00 2008	303	5.5743
wsqs_1 They have up-to-date equipment	1.00 2007	240	3.3792
	2.00 2008	292	3.8767
wsqs_2 Their physical facilities are visually appealing	1.00 2007	240	3.3042
	2.00 2008	292	3.6884
wsqs_3 Their employees are well dressed and appear neat	1.00 2007	240	3.7208
	2.00 2008	292	4.0308
wsqs_5 They can comply with promise to do something on time	1.00 2007	240	3.4792
	2.00 2008	292	3.6815
wsqs_6 They are sympathetic and reassuring to customers who have problems	1.00 2007	240	3.2833
	2.00 2008	291	3.5670
wsqs_10 They tell customers exactly when services will be performed	1.00 2007	239	3.4017
	2.00 2008	292	3.6918
wsqs_11 Customers can get prompt services from their employees	1.00 2007	239	3.3473
	2.00 2008	292	3.5959
wsqs_12 Their employees are willing to help customers	1.00 2007	239	3.1799
	2.00 2008	292	3.5000
wsqs_14 Customers can trust their employees	1.00 2007	238	3.4202
	2.00 2008	292	3.7089
wsqs_16 Their employees are polite	1.00 2007	239	3.1674
	2.00 2008	292	3.5582
wsqs_18 The company can give customers individual attention	1.00 2007	239	3.3347
	2.00 2008	291	3.6598
wsqs_19 Their employees can give customers personal attention	1.00 2007	239	3.2971
	2.00 2008	292	3.5411
wsqs_20 Their employees know the needs of customers	1.00 2007	239	3.2510
	2.00 2008	292	3.4760
wsqs_21 The company has their customers' best interest at heart	1.00 2007	239	3.3431
	2.00 2008	292	3.7466
wsqs_22 They operate hours convenient to all their customers	1.00 2007	239	4.9791
	2.00 2008	292	4.4521
woverall Overall satisfaction for Worst Casino	1.00 2007	238	3.1870
	2.00 2008	260	3.5269

The performance gaps are operationally defined as the difference between the importance scores and satisfaction scores. The larger are the gaps the more urgent is for the concerned casino to improve on that particular SERVQUAL item. In table 9 below the performance gaps

for the perceived best casino are not large (all are less than “1” ).

**Table 9: Listing of performance gaps for best casinos in descending order**

	Round 2007	Round 2008	Total
Bgap5 They can comply with promise to do something on time	<b>0.89</b>	<b>0.87</b>	<b>0.88</b>
Bgap6 They are sympathetic and reassuring to customers who have problems	<b>0.77</b>	<b>0.73</b>	<b>0.75</b>
Bgap8 They provide services at the time they promise to do so	<b>0.73</b>	<b>0.76</b>	<b>0.75</b>
Bgap7 They are dependable	<b>0.66</b>	<b>0.60</b>	<b>0.63</b>
Bgap13 Even their employees are busy, they respond to customers requests promptly	0.65	0.57	<b>0.61</b>
Bgap21 The company has their customers' best interest at heart	<b>0.73</b>	0.43	0.56
Bgap11 Customers can get prompt services from their employees	0.52	<b>0.59</b>	0.56
Bgap12 Their employees are willing to help customers	0.50	0.54	0.52
Bgap16 Their employees are polite	0.54	0.51	0.52
Bgap20 Their employees know the needs of customers	0.63	0.42	0.51
Bgap15 Customers feel safe in their transactions with their employees	0.55	0.46	0.50
Bgap14 Customers can trust their employees	0.48	0.48	0.48
Bgap9 They keep their records accurately	0.48	0.47	0.47
Bgap4 Physical facilities keep with type of services provided	0.53	0.42	0.47
Bgap10 They tell customers exactly when services will be performed	0.30	0.35	0.33
Bgap17 Their employees get adequate support from the company to do their jobs wel	0.38	0.25	0.31
Bgap19 Their employees can give customers personal attention	0.36	0.25	0.30
Bgap18 The company can give customers individual attention	0.18	0.13	0.15
Bgap2 Their physical facilities are visually appealing	0.04	0.13	0.09
Bgap1 They have up-to-date equipment	0.08	0.08	0.08
Bgap22 They operate hours convenient to all their customers	-0.10	0.08	0.00
Bgap3 Their employees are well dressed and appear neat	0.07	-0.09	-0.02

The performance gaps for the perceived “worst” casinos are much larger than those compared with the best casinos. Table 10 lists the performance gaps in descending order. The most urgent areas for improvement for the worst casinos are: employee politeness; keeping with promises with customers; willingness to help customers; providing prompt services. Most of these issues are related to employee attitude towards service quality. Staff coaching will be helpful for these casinos in tackling these attitudinal problems.

**Table 10: Listing of performance gaps for worst casinos in descending order**

	Round 2007	Round 2008	Total
Wgap16 Their employees are polite	<b>3.12</b>	<b>2.62</b>	<b>2.84</b>
Wgap5 They can comply with promise to do something on time	<b>2.59</b>	<b>2.45</b>	<b>2.51</b>
Wgap12 Their employees are willing to help customers	<b>2.64</b>	<b>2.39</b>	<b>2.51</b>
Wgap11 Customers can get prompt services from their employees	2.47	<b>2.35</b>	<b>2.40</b>
Wgap2 Their physical facilities are visually appealing	<b>2.50</b>	2.28	<b>2.38</b>
Wgap8 They provide services at the time they promise to do so	2.37	<b>2.32</b>	2.34
Wgap13 Even their employees are busy, they respond to customers requests promptly	2.39	2.27	2.32
Wgap1 They have up-to-date equipment	<b>2.56</b>	2.12	2.32
Wgap6 They are sympathetic and reassuring to customers who have problems	2.34	2.27	2.30
Wgap4 Physical facilities keep with type of services provided	2.27	2.15	2.21
Wgap20 Their employees know the needs of customers	2.39	2.00	2.18
Wgap14 Customers can trust their employees	2.16	1.97	2.06
Wgap7 They are dependable	2.13	1.99	2.05
Wgap15 Customers feel safe in their transactions with their employees	2.08	2.00	2.03
Wgap19 Their employees can give customers personal attention	2.16	1.80	1.96
Wgap21 The company has their customers' best interest at heart	2.24	1.65	1.91
Wgap17 Their employees get adequate support from the company to do their jobs well	1.94	1.84	1.88
Wgap10 They tell customers exactly when services will be performed	1.85	1.87	1.86
Wgap9 They keep their records accurately	1.81	1.81	1.81
Wgap3 Their employees are well dressed and appear neat	1.91	1.56	1.72
Wgap18 The company can give customers individual attention	1.89	1.47	1.66
Wgap22 They operate hours convenient to all their customers	0.82	1.20	1.03

The differences of satisfaction scores between the perceived best and worst casinos are compared in Table 11 below. The magnitudes of these gaps are generally much larger than those for the ‘best’ casinos’. The largest performance gaps are:

- employee politeness;
- physical facilities;
- up-to-date equipment;
- staff willingness to help customers; and
- providing prompt services.

These perceived performance gaps provide useful clues to the ‘worst’ casinos to improve.

**Table 11: Listing of performance gaps between the best and worst casinos in descending order**

	Round 2007	Round 2008	Total
BWPG16 Their employees are polite	<b>2.58</b>	<b>2.11</b>	<b>2.32</b>
BWPG2 Their physical facilities are visually appealing	<b>2.47</b>	<b>2.15</b>	<b>2.29</b>
BWPG1 They have up-to-date equipment	<b>2.50</b>	<b>2.04</b>	<b>2.25</b>
BWPG12 Their employees are willing to help customers	<b>2.13</b>	<b>1.85</b>	<b>1.98</b>
BWPG11 Customers can get prompt services from their employees	<b>1.96</b>	<b>1.76</b>	<b>1.85</b>
BWPG3 Their employees are well dressed and appear neat	1.84	1.67	1.75
BWPG4 Physical facilities keep with type of services provided	1.75	1.74	1.74
BWPG13 Even their employees are busy, they respond to customers requests promptly	1.72	1.70	1.71
BWPG20 Their employees know the needs of customers	1.75	1.59	1.66
BWPG19 Their employees can give customers personal attention	1.79	1.55	1.66
BWPG5 They can comply with promise to do something on time	1.71	1.57	1.63
BWPG8 They provide services at the time they promise to do so	1.65	1.57	1.61
BWPG14 Customers can trust their employees	1.69	1.49	1.58
BWPG17 Their employees get adequate support from the company to do their jobs well	1.55	1.59	1.57
BWPG6 They are sympathetic and reassuring to customers who have problems	1.58	1.54	1.55
BWPG15 Customers feel safe in their transactions with their employees	1.53	1.53	1.53
BWPG10 They tell customers exactly when services will be performed	1.53	1.52	1.52
BWPG18 The company can give customers individual attention	1.71	1.33	1.50
BWPG7 They are dependable	1.45	1.39	1.42
BWPG21 The company has their customers' best interest at heart	1.50	1.24	1.36
BWPG9 They keep their records accurately	1.34	1.34	1.34
BWPG22 They operate hours convenient to all their customers	0.92	1.13	1.04

### **Analysis of casino specific items**

Parasuraman et al.(1991) proposed that context specific items can be added to the SERVQUAL questionnaire and that these items can be analyzed separately. Koo and Koo (2007) recommend that this kind of study on benchmarking the quality service among the casinos in Macau should be done collectively in the form of industry survey on a regular basis so that the findings can be shared among them. This will help the concerned casinos focus appropriate attention to improve on issues that really matter. The study should be done on a longitudinal basis so that changes in customers’ perception can be effectively tracked and monitored for improvement. This paper is prepared with this objective in mind to illustrate the usefulness of conducting an industry study on an on-going basis. The eight casino specific

items (i.e. questions 23 to 30 in the Appendix) were developed through some focus group interviews. The following tables are the results of descriptive analysis. The format (e.g. a 7-point Likert scale follow that of the SERVQUAL questionnaire design). The importance and satisfaction scores are listed in descending order.

**Table 12: Listing of importance means for casino specific items in descending order**

	N	Mean
sqi_30 Location of the casino (i.e. convenience to customers)	316	5.80
sqi_26 Casino bus service (e.g. convenience, frequency,...)	317	5.73
sqi_23 Complimentary (e.g. ferry ticket, hotel,...) to customers	317	5.67
sqi_28 Cashier service (cage)	317	5.48
sqi_25 Free food and drink provided	317	5.38
sqi_27 Quality & quantity of promotional materials	317	5.32
sqi_29 Discounts/rebates on casino (dead) chips	316	5.28
sqi_24 Performance & Entertainment show	317	5.08
Valid N (listwise)	315	

On the whole all items get importance ratings exceeding the neutral value of “4” , signifying that they are all key considerations by the customers in choosing a casino. Convenience (i.e. convenient location and casino bus service) appears to be the most important casino specific item. It is interesting to note that “discount and rebate” comes relatively low in the list. This is because discount and rebates are offered more or less at similar levels among the casinos, and with the capping of 1.25% as the ceiling, the room to maneuver with discounts and rebate are limited. Entertainment is the least important attribute on a relative basis. Not all casinos in Macau offer entertainment show. For those casinos with entertainment shows inside the gaming areas, the shows are pretty similar. Real casino patrons come to the casinos are more attracted by the tables games and not by the stage performance.

**Table 13: Listing of satisfaction means for best casino in descending order**

	N	Mean
bsqs_26 Casino bus service (e.g. convenience, frequency,...)	304	5.46
bsqs_25 Free food and drink provided	303	5.32
bsqs_23 Complimentary (e.g. ferry ticket, hotel,...) to customers	304	5.27
bsqs_30 Location of the casino (i.e. convenience to customers)	303	5.25
bsqs_28 Cashier service (cage)	304	5.16
bsqs_27 Quality & quantity of promotional materials	304	5.12
bsqs_24 Performance & Entertainment show	304	5.11
bsqs_29 Discounts/rebates on casino (dead) chips	303	4.89
Valid N (listwise)	301	

The best casinos are perceived to be providing good casino bus service. In fact not all 31 casinos are providing free buses at the Ferry for the Hong Kong patrons and at the Border Gate for the Chinese patrons. Respondents are satisfied with the food and drinks provided by the best casinos. Satisfaction scores for all eight casino specific items are over the neutral value of “4” , implying that the respondents are satisfied with them.

**Table 14: Listing of satisfaction means for worst casino in descending order**

	N	Mean
wsqs_30 Location of the casino (i.e. convenience to customers)	292	4.01
wsqs_29 Discounts/rebates on casino (dead) chips	291	3.96
wsqs_28 Cashier service (cage)	292	3.94
wsqs_23 complimentary (e.g. ferry ticket, hotel,..) to customers	292	3.90
wsqs_26 Casino bus service (e.g. convenience, frequency,...)	292	3.87
wsqs_27 Quality & quantity of promotional materials	292	3.76
wsqs_25 Free food and drink provided	292	3.66
wsqs_24 Performance & Entertainment show	292	3.57
Valid N (listwise)	291	

The satisfaction scores for the worst casinos are generally lower than those of the best casinos. Apart for the location aspect, the respondents are not satisfied with them. These perceived worst casinos are probably not providing entertainment shows, free food and drinks, promotional materials and casino buses.

### **Conclusion and recommendations**

The contrast SERVQUAL conducted on a longitudinal basis can reveal much useful insight as to which areas of improvement are needed for the perceived best and perceived worst casinos respectively. The contrast between the perceived best and the worst casinos helps respondents more effectively differentiate the two extreme ends of service providers. More comparison and contrast on various SERVQUAL and casino specific items are possible.

The key findings in this empirical longitudinal study are that the performance standards between the perceived best and worst casinos are quite large and that politeness stands out as the single most important attribute and the perceived worst casinos performed least well in this respect. The service attitude of the concerned employees can be improved by means of training and/or coaching.

The revised format of contrast SERVQUAL (see Appendix) is a useful and pragmatic instrument to collect customer information regarding service quality. Items specifically related to the gaming industry in Macau should be incorporated in the questionnaire (e.g. casino bus, entertainment shows, complimentary, promotional materials, ...etc.). The contrast approach helps provide much more meaning analyses.

Because of the volatile and hard-to-predict nature of the gaming market in Macau, longitudinal industry surveys should be done collectively and periodically and research findings should be shared among all concessionaires and sub-concessionaires. In this respect, the Macau SAR government should coordinate with the six casino operators and professional organizations like

the Macau Gaming Research Association, local and overseas universities, on determining the types of industry study and research objectives. Concerted efforts among the casino operators to launch an industry survey of this nature will help improve the overall service quality standard of the gaming industry.

### Contrast SERVQUAL Questionnaire

### Appendix

<b>Your name :</b> _____ <b>In your opinion, the best casinos in Macau is :</b> _____ <b>In your opinion, the worst casinos in Macau is :</b> _____		<b>Importance</b> Please rate the importance : 7 = Most Important 6 = Important 5 = Slightly Important 4 = Neutral 3 = Slightly Unimportant 2 = Unimportant 1 = Most unimportant		<b>Satisfaction</b> Please rate the satisfaction : 7 = Most satisfactory 6 = Satisfactory 5 = Slightly satisfactory 4 = Neutral 3 = Slightly dissatisfactory 2 = Dissatisfactory 1 = Most dissatisfactory	
	<b>Service Quality Items</b>	As a customer, you think the importance score should be:	The satisfactory level of the BEST casino is:	The satisfactory level of the WORST casino is:	
1	They have up-to-date equipment				
2	Their physical facilities are visually appealing				
3	Their employees are well dressed and appear neat				
4	Physical facilities keep with type of services provided				
5	They can comply with promise to do something on time				
6	They are sympathetic and reassuring to customers who have problems				
7	They are dependable				
8	They provide services at the time they promise to do so				
9	They keep their records accurately				
10	They tell customers exactly when services will be performed				
11	Customers can get prompt services from their employees				
12	Their employees are willing to help customers				
13	Even their employees are busy, they respond to customers requests promptly				
14	Customers can trust their employees				
15	Customers feel safe in their transactions with their employees				
16	Their employees are polite				
17	Their employees get adequate support from the company to do their jobs well				
18	The casino can give customers individual attention				
19	Their employees can give customers personal attention				
20	Their employees know the needs of customers				
21	The casino has their customers' best interest at heart				
22	They operate hours convenient to all their customers				
23	Complimentary (e.g. ferry ticket, hotel,...) to customers				
24	Performance & Entertainment show				
25	Free food and drink provided				
26	Casino bus service (e.g. convenience, frequency,...)				
27	Quality & quantity of promotional materials				
28	Cashier service (cage)				
29	Discounts/rebates on casino (dead) chips				
30	Location of the casino (i.e. convenience to customers)				
<b>The Overall Satisfaction level for this casino is::</b>					
Gender : Male [ <input type="checkbox"/> ]; Female [ <input type="checkbox"/> ] Age : 21and below [ <input type="checkbox"/> ]; 21-30 years [ <input type="checkbox"/> ]; 31-40 years [ <input type="checkbox"/> ]; 41-50 years [ <input type="checkbox"/> ]; 50 and above [ <input type="checkbox"/> ] Working experience : Below 1 year [ <input type="checkbox"/> ]; 1-10 years [ <input type="checkbox"/> ]; 11-20 years [ <input type="checkbox"/> ]; 20 years and above [ <input type="checkbox"/> ] Currently working in casino? : Yes [ <input type="checkbox"/> ]; No [ <input type="checkbox"/> ] Number of casinos visited last 12 months : _____					

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**Abstract:**

The gaming industry in Macau has on the one hand grown very rapidly and on the other hand it has also experienced unprecedented challenges in many aspects. Beyond doubt the market has become extremely competitive because of the fast growth in supply of gaming tables and casinos. Without the intervention of the Macau SAR government, the six casino operators could have started a fierce price war in terms of rebates to the promoters. In the absence of a genuine co-opetition arrangement, the market needs to be regulated closely and fairly by the regulatory body in order to ensure a healthy development for the industry as a whole. In this respect, the Macau Gaming Research Association has since a long while ago advocated the need of a research to determine the suitable growth rate for the gaming industry. In the meantime, all casino concessionaires operating their businesses in a tense competitive environment are expected to provide excellent customer service in order to survive and prosper. This paper is an extension of a paper titled "Measuring Service Quality (SERVQUAL) of Casinos in Macau" presented in last year's conference in Shanghai. An improved version of the Contrast SERVQUAL questionnaire is used to gauge quality service among the various casinos. In addition to the typical 22 questions from the SERVQUAL questionnaire, eight other questions relating to the casino industry in Macau are added. The data were collected from 318 respondents from January till July 2008 (cf. 241 respondents in 2007). Both sets of longitudinal data (trend study) are compared to see if there is any significant change over the period.

**Key words:** Quality service, Macau, Contrast SERVQUAL, trend study



