Industry Labor Force Quality: An Investigation from the Customer Service Perspective

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Abstract

To investigate the labor force quality deficiency in the Macao casino industry, this study conducted a survey among Macao casino guests on their assessment of customer service. The mean scores of different service features were calculated and compared across casinos operated by different casino companies. Furthermore, different service features were examined for their importance to the overall customer satisfaction based on an estimated regression model. The study found that most of the service features were below satisfactory rating, but Wynn Resorts stood out as the top performer among the four gaming companies. The regression model identified "respect", "smile" and "skill" as the most important contributors to overall customer satisfaction. The findings suggest that to become a top gaming destination, Macao must strengthen its labor force quality in both technical and interpersonal skills.

Keywords: Macao casinos, labor quality, customer service, inadequacy, survey

Introduction

In 2006, Macao, the fastest growing casino city in the world, replaced the Las Vegas Strip as the No.1 gaming destination in the world, with its gaming revenue totaling $6.9billion (Gaming Inspection and Coordination Bureau of the Macao Special Administrative Region, 2007). In contrast, with far more casino tables and slots, the Las Vegas Strip realized only $6.6 billion gaming revenue in the same year (Nevada State Gaming Control Board, 2006). Macao's growth momentum is not expected to slow down anytime soon. Gaming analysts have projected that Macao's gaming revenue will rise to $12-13 billion by 2010 (Stutz, 2007). The enormous gaming growth in Macao, however, is not without problems and the biggest challenge comes from the human resource deficiency, in terms of both quantity and quality.

According to *Macao Daily* (March 30, 2007), as Macao has a population of only half a million and a labor force of 276,000, it has been difficult for the gaming industry to recruit enough employees. By the end of 2006, there were 5,631 unfilled job positions in the industry, about 15 percent of its existing employees. On the other hand, the deficiency is also reflected in the quality of the labor force. In November 2006, while facing a labor shortage, the Sands Casino had to lay off more than one 100 whose performance failed to meet the company's expectations and requirements during their probation period (*Macao Daily*, November 8, 2006). Realizing the severity of the labor quality deficiency, some Macao legislators pointed out that the Government's labor policy should not only help the industry solve the labor shortage, but more importantly, improve the labor force quality (*Macao Daily*, January 9, 2007).

To resolve the labor quality deficiency of the Macao gaming industry, a thorough assessment of the current status of its labor quality is needed. What are the major quality

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problems with the labor force and how severe are they? These questions must be first answered before the problems can be resolved. This study attempts to answer these questions by conducting a survey on service quality among Macao casino patrons. The casino industry is a service industry and services are produced by its labor force. The quality of the labor force will be ultimately reflected in the quality of the services they provide. This study analyzes Macao's gaming labor quality by examining service quality as perceived by casino patrons. Furthermore, the study will compare service quality across casinos of four companies, namely Sociedade De Jogos De Macau (SJM), Wynn Resorts, the Galaxy Casino, and the Las Vegas Sands, to identify labor force quality gaps, if any, among those competitors. Finally, factors contributing to customer satisfaction will be investigated to determine how the casino labor force should be improved to raise service quality and enhance customer satisfaction.

This study analyzes Macao's gaming labor quality by examining service quality as perceived by casino patrons.

To our best knowledge, although labor quality has been a great concern for the Macao gaming industry, no research on the issue has been documented. Therefore, the findings of the study should help Macao policy makers and casino industry practitioners better understand what are the quality deficiencies of the labor force, how serious they are and how they could be resolved.

Importance of Labor Quality for Macao Casinos

With many new casinos opened in Macao in recent years and more casinos to be launched in the near future, competition among Macao casinos will inevitably heat up and customer service could become the key to success. Kale (2006) points out that with significant new gaming capacity added to the Macao market, the competition for customers will intensify and casinos will soon find that high levels of service quality and customer satisfaction are critical for maintaining customer loyalty and sustainable competitive advantage. The casino industry is a service industry and high-quality services are provided by a high-quality labor force. According to Kale (2006), to survive and excel in the long run, every casino in Macao will have to raise its labor quality in order to strengthen customer service. Companies that are customer-centric and train all their employees on the basics of customer service may be the market share leaders in Macao.

High labor quality guarantees excellent customer service and is thus the key to success for casinos operating in a competitive environment. Commenting on how Indian casinos should deal with growing competition in the U.S., Baird (2002) indicates that the answer is guest service. For an Indian casino to stand out in the midst of increased competition, it must have superior customer services provided by a high-quality, front-line labor force. As Edward (2006) argues, the spread of casinos on Native American reservations throughout the U.S. has occasioned the need to provide competitive customer services for the vast niche markets that characterize varying demographic populations.

For many years before the opening of Sands Macao in 2004, the Macao gaming market was under the monopoly of Stanley Ho's gaming company, Sociedade de Turismo Diversoes de Macau (STDM) and there was no competition. In 2002, the Macao Special Administrative Region (SAR) Government granted gaming licenses to not only Sociedade de Jogoes de Macau (SJM), a wholly-owned subsidiary of STDM, but also foreign competitors, including Las Vegas-based Wynn Resorts and Sands Corp., and Hong Kong-based Galaxy Casino. In the past, lack of competition in Macao made labor quality a less important issue. At present, with three casino license holders and two sub-license holders rivaling with each other in Macao, the landscape of Macao casino gaming is completely changed. Raising the labor quality to generate high customer satisfaction can no longer be neglected. Creating casino guest advocates by being nice to customers

would be an effective means to win over the patrons (Ellis, June 4, 2007).

Macao casinos are not only competing with each other in Macao. They are facing competitions from casinos in Korea and Malaysia and will soon be confronted with challenges from new Asia gaming destinations such as Singapore and Japan (Gu and Gao, 2006). With the proliferation of legalized casino gaming in the region, providing competitive customer service to attract and retain guests will become an issue of growing importance for Macao casinos.

Customer service is produced by casino employees, especially front-line employees who directly interact with guests. The quality of customer service of a casino, in the final analysis, is rooted in the quality of its employees. Superior labor quality warrants superior customer service and inferior labor quality leads to inferior customer service. For a Macao casino to outrival its competitors in Macao and throughout the region, having a quality labor force that can provide superior customer service is of life-and-death importance.

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Elements of Good Customer Service

Proposing basic components of good casino guest service, Ellis (May 9, 2006) argues that good customer service relies heavily on confidence, courtesy, and communication. While confidence can be found in an employee's smile and eye contact with the customer, courtesy is often shown in an employee's respect to the guest. On the other hand, good communication would enable casino workers to understand what the customer needs and wants. Ellis (January 15, 2007) further points out that observant employees' offering to help guests before they ask is an important component of good customer service. Smile is also an essential service feature. According to *Harvard Business Review* ("Service With A Very Big Smile", 2007), smile plays a critical role in customer service in the hospitality business: the bigger the employee's smile, the more likely a customer would view him or her as competent, and the happier the customer. Addressing problems found with casinos' customer services, Kale (2006) suggests that Macao casinos' training programs should first of all teach employees the philosophy of customer-centrism. Keeping this philosophy in mind, casino employees can learn how to greet customers, diagnose customer problems, demonstrate customer empathy and communicate effectively with guests.

Commenting on how to improve the service of Macao casino dealers, a Macao casino executive (*Macao Daily*, April 13, 2006) with more than 20 years' casino experience indicated that the dealer job in Macao should be humanized by adding more interpersonal requirements. According to the casino executive, besides technical training, Macao casinos should cultivate a customer-above-all mindset among dealers. In particular, communication skill, friendliness and respectfulness shown to customers are as important as technical skills. In other words, the criteria for evaluating the job performance or the quality of a casino's labor force, especially dealers, should include both technical and humanization aspects.

Research Methodology
The Survey

The best way to assess the labor quality as reflected in its service quality is to obtain assessments from guests. Therefore, this study is survey-based and a casino customer survey, with questions encompassing both technical and humanization aspects of services provided by casino employees, was designed. After revisions based on a pilot-test of the survey among 67 gaming-major students of University of Macao and 68 casino visitors from late 2006 to early 2007, the survey was finalized with 11 questions.

The first nine questions in the survey use a 5-point Likert scale to provide a measure of a casino's customer service quality. Here, 1 means the least favorable or worst situation; 2 indicates a unfavorable level; 3 implies mediocre or average; 4 represents

a level that is better than average or satisfactory; and 5 refers to the most favorable or excellent status. The first five questions are about "respect", "smile", "greet", "help" and "communication" features in employees' interactions with customers. These five service features are heavily emphasized in employee handbooks of major casino resorts on the Las Vegas Strip. The sixth question is about whether dealers ask or hint for tips. Asking for tips was a common practice in old days in Macao casinos. The first six questions were designed to evaluate the humanization aspect of service quality. The next two questions deal with the technical quality of dealers, namely gaming skills and gaming errors. The 9th question asks the guests about their overall satisfaction with the casino service. The 10th question, a non-Likert-scale question, asks about guests' prior experience to other gaming destinations. Question 11, the last one in the survey, is an open-end question inviting comments and suggestions. Below is a list of the 11 survey questions:

1. Do casino employees respect guests?
2. Do employees smile to guests?
3. Do employees greet guests?
4. Do employees take initiative to help customers?
5. Do you feel difficult in communicating with employees?
6. Do dealers ask or hint for tips?
7. Are you satisfied with dealers' dealing skills?
8. How often do dealers make mistakes?
9. What is your overall assessment of the service quality?
10. Have you been to casinos in other destinations? If yes, where?
11. What are your comments and suggestions for the casino?

The survey was purposely designed to be concise because it would be conducted by students of the University of Macau among departing casino guests when they were waiting for casino shuttle buses to the Macau International Airport, the Macau-Hong Kong Ferry Port and the Border Gate to China.

To make the results more representative of the all year round customer service, the survey was conducted in two separate times. The three Chinese holiday weeks or "Golden Weeks" have created three peak times in Macao casinos during a year. They are the Chinese New Year week (normally in February), the Labor Day week (in May) and the Chinese National Day week (in October). During those weeks, large flocks of visitors from China swarm into Macao casinos and that could have a negative impact on service quality. These three months' visitors have comprised about 25% of the entire year's visitor volume since 2001. To make the results reflective of service quality during both busy and normal times, 260 or about 25% of survey responses were collected in the Chinese New Year week which was the third week in February 2007 and the rest, 762 or 75%, were collected in the third week of March 2007 which represents a normal season. By conducting the survey this way, the seasonality effect on service quality, if any, could be accounted for.

Among the 1,022 survey forms collected, 485 or 48% were from casinos belonging to SJM; 223 or 22% were from casinos operated by Galaxy Casino; 206 or 20% were obtained from the Sands Casino owned by the Las Vegas Sands Corp.; and 107 or 10% were from the Wynn Resort. The survey form distribution among the four gaming license holders was about the same as their market shares in terms of their 2006 gaming revenues. Twenty-three survey forms with incomplete information were not used in analysis. The final sample contained 999 useable survey responses with 478 from SJM, 220 from Galaxy, 200 from Sands and 101 from Wynn Resorts.

Analytical Methods

For the first nine Likert-scale questions, the survey results were compared between those who had prior experience of visiting casinos in other destinations and those who had no such experience. Prior visits to other gaming destinations may have an impact on survey scores due to a benchmarking effect. Survey participants who had visited other

gaming destinations may give lower or higher scores to Macao casinos because they had some benchmark to compare with. Here, t tests were performed to determine if the mean scores given by those who had visited other destinations were significantly higher or lower than the mean scores assigned by those who had no such experiences.

Secondly, the mean scores derived from the first nine questions were compared across the four companies. One-way ANOVA test, as suggested by Kleinbaum, Kupper, & Muller (1988), was used to determine if there were significant differences in the mean scores across the four competitors. Furthermore, the study examined the relationships between the scores of the first eight questions and that of the ninth question on overall satisfaction to see if the answers to the first eight questions may provide explanations to the overall customer satisfaction.

Finally, the backward stepwise regression method (Stevens, 1986) was used to estimate a model, with customer overall satisfaction scores (from Question 9) as the dependent variable and the scores on service quality features (from Questions 1-8) as the independent variables. The cutoff significant F value for retaining a variable was selected at the 0.05 level. The purpose of estimating the regression model was to identify factors that may have significantly contributed to the overall satisfaction, thus providing clues to how Macao casinos may improve relevant service features to increase overall customer satisfaction.

Findings and Analysis
Mean Scores of the First Nine Questions

Table 1 presents the summary statistics of the scores obtained from the first nine Likert-scale questions. Question 9, the indicator of overall satisfaction with the service of casinos visited, has a mean of 3.532 and a mode of 4, suggesting that Macao casino guests' overall evaluation of the service is above mediocre and leans toward the satisfactory level.

Among the other eight questions, the highest score was found with Question 6 or "tip", with the mean at 4.602 and the mode at 5, indicating that Macao dealers seldom ask or hint for tips. The mean scores of Questions 5 & 8 regarding "communication" and "mistake" are also over 4 with modes at 5, suggesting that the employees have few difficulties in communicating with guests, and dealers rarely make mistakes. Questions 1 and 7, referring to "respect" and "skill", received relatively lower scores of 3.498 and 3.698, respectively with their modes at 4, implying that the two service features are between mediocre and satisfactory levels. Lowest mean scores and modes are associated with three questions on the humanization aspect of service quality, namely "smile" (Question 2), "greet" (Question 3) and "help" (Question 4). Their means are below 3 and modes are at 3, suggesting that the service quality in terms of the three features is mediocre or worse.

Table 1. Summary Statistics of Survey Items

	Respect	Smile	Greet	Help	Comm.	Tip	Skill	Mistake	Overall
Mean	3.498	2.771	2.551	2.546	4.304	4.602	3.698	4.361	3.532
Mode	4.000	3.000	3.000	3.000	5.000	5.000	4.000	5.000	4.000
Std. Dev.	0.664	0.988	1.033	1.023	0.914	0.746	0.682	0.704	0.697

Note: Std. Dev. = Standard deviation, Comm. = Communication

Impact of Prior Visitation to Other Destinations

The answers to Question 10 regarding prior visits to other gaming destinations show that among the 999 responses, 219 or 22 percent had visited casinos in other destinations. Those destinations included Las Vegas, Atlantic City, Australia, Malaysia, Korea, Canada, Russia and France. Table 2 provides a comparison of the scores between Group 1, those who had never visited other casino destinations, and Group 2, those who had visited other casino destinations, for the nine Likert-scale questions. As can be seen

from the table, among the nine service features, only three have significant differences in means scores between the two groups. The mean scores of Group 1 are higher than those of Group 2 in "respect", "smile", "communication", "tip", "skill", "mistake", and "overall". The t test results, however, show that only "smile", "tip", and "skill" of Group 1 are significantly higher than Group 2 at the 0.1 or 0.01 levels. It seems that prior visitation to other gaming destinations had only limited impact on the survey scores. Group 2, with prior visitation to other casino destinations, appeared to be more stringent only on scoring "smile", "tip", and "skill". More importantly, the two groups' scores on Question 9, as the t test indicates, are essentially the same. In other words, prior experience had no effect on the assessment of overall satisfaction.

Table 2. Comparison of Scores between Two Groups Based on Prior Visitation to Other Casino Destinations

	Respect	Smile	Greet	Help	Comm.	Tip	Skill	Mistake	Overall
Group 1 (n=780)	3.508	2.803	2.544	2.526	4.305	4.642	3.729	4.379	3.535
Group 2 (n=219)	3.466	2.658	2.575	2.616	4.301	4.457	3.584	4.324	3.521
t Stat.	0.826	1.922	-0.4	-1.161	0.054	3.271	2.788	1.027	0.264
Sig.	0.204	0.055	0.344	0.123	0.479	0.001	0.003	0.152	0.396

Note: Group 1 are those who had never visited other casino destinations before. Group 2 are those who had been to other casino destinations.

Answers to the Open-end Question

For Question 11, which invites comments and suggestions from the participants, 118 or 12 percent of the 999 survey forms contained comments. Table 3 provides a summary of the contents of those comments. The remarks regarding service quality concentrated on "smile", "respect", "greet", and "skill", consistent with the relatively lower or mediocre scores on those features (see Table 1). Some remarks were about a casino's service facilities, such as frequency of bus shuttles, in-door air quality, etc. Evidently, casino guests evaluated customer service based on not only employee job performance but also casino facilities.

Table 3. Contents Summary of Answers to the Open-end Question

	Contents	No. of Comments
Comments Related to Employees	Smile	21
	Respect	14
	Greet	13
	Skill	11
	Language	3
	Appearance	2
	Tip	1
Comments Related to the Casino	Service improvement	11
	Facility improvement	8
Other		31
Total		118

Cross-company Comparisons

Table 4 compares the employee service quality based on mean scores of the first nine questions across casinos operated by the four companies. As can be seen from the table, Wynn ranks the highest in 6 out of the 9 service features, including "respect", "greet", "help", "tip", "mistake", and "overall", and the differences in 4 of those features, namely "respect", "greet", "help", and "overall" are significant at least at the 0.1 level. Wynn's score on "smile" (2.871) is almost the same as that of top-ranked SJM at 2.883. It is necessary to point out that 152 or 32% of the 478 SJM responses were collected from SJM's newest Grand Lisboa casino right after its grand opening in early February 2007. The "grand-opening effect" may possibly have helped raise SJM's "smile" score above that of Wynn. Among the four gaming companies, Wynn's overall better performance in terms of customer service is obvious.

Table 4. Cross-company Mean Score Comparison and ANOVA Test

Company	N	Respect	Smile	Greet	Help	Comm.	Tip	Skill	Mistake	Overall
SJM	478	3.521	2.883	2.634	2.586	4.201	4.584	3.669	4.387	3.527
Galaxy	220	3.405	2.627	2.427	2.414	4.227	4.632	3.773	4.386	3.450
Sands	200	3.500	2.610	2.390	2.485	4.655	4.540	3.680	4.270	3.525
Wynn	101	3.594	2.871	2.743	2.762	4.267	4.743	3.703	4.426	3.743
F Value		2.359	5.791	4.911	3.236	12.880	1.874	1.207	1.689	4.141
Sig.		0.070	0.001	0.002	0.022	0.000	0.132	0.306	0.168	0.006

For the overall customer satisfaction (Q9), Wynn stands at the top with a mean score of 3.743, followed by SJM (3.527) and Sands Casino (3.525). Galaxy ranks at the bottom with a mean of 3.45. The ANOVA test, with its F value of 4.141, indicates that overall satisfaction is significantly different across the four firms at the 0.01 level. Evidently, in terms of customer satisfaction, SJM, Sands and Galaxy in particular, need to catch up with Wynn.

The highest F value of the ANOVA test is associated with "communication", indicating that the differences in this feature across the firms are significant at the 0.000 level. Here, Sands stands out as the best performer with a mean score of 4.655, followed by Wynn (4.267). SJM ranked the lowest, with a mean of 4.201.

The ANOVA test shows that the four casino companies are different in three other features, namely "smile", "greet" and "help" at the 0.05 level. In terms of "smile", SJM and Wynn scored significantly higher than Galaxy and Sands. In terms of "greet" and "help" Wynn scored the highest, followed by SJM. Galaxy and Sands again fell behind Wynn and SJM. In Table 4, while all firms' scores on "smile", greet" and "help" are below 3, indicating less than mediocre levels on the three features, those of Sands and Galaxy are even worse. Indeed, Galaxy and Sands may need to make extra efforts to improve on the three features in order to compete with SJM and Wynn.

With a mean score of 3.594, Wynn also stands out as the best in terms of "respect". The F value of the ANVOA test indicates that the differences among the means of "respect" across the four firms are significant at the 0.1 level. The F values of the ANOVA test on other three features, namely "tip", "skill" and "mistake", show that differences in the three features among the four firms are not statistically significant. Therefore, all the four firms have performed equally well in those aspects.

Correlations between Overall Satisfaction and other Features

To examine how the overall customer satisfaction may be related to other service features, this study computed the coefficients of correlation between the overall satisfaction (Question 9) and each of the other features (Questions 1-8). Table 5 provides

the computed coefficients of correlation. The coefficients of correlation between each of the 8 features and the overall satisfaction are all positive and highly significant (at the 0.000 level), with "respect" showing the closest correlation with the overall satisfaction. Therefore, all the 8 features are likely to be significant and positive contributors to the overall customer satisfaction.

Table 5. Coefficient of Correlation of Service Features with Overall Assessment

	Respect	Smile	Greet	Help	Comm.	Tip	Skill	Mistake
Correlation Coefficient	0.544	0.465	0.416	0.383	0.199	0.244	0.355	0.212
Sig. (1-tailed)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Estimated Regression Model

To further examine how the eight service features may have contributed to the overall customer satisfaction, a regression model was estimated using stepwise backward selection procedure (Stevens, 1986). Here, overall satisfaction was the dependent variable and the other eight service features were the candidate independent variables. As prior visitation to other gaming destinations was found to have no impact on overall satisfaction, there was no need to control for the effect of prior visitation in the modeling.

The resulting model confirms what has been implied by the coefficients of correlation between the eight features and the overall satisfaction. Table 6 demonstrates the results of the stepwise regression. All the eight service feature variables were retained by the regression procedure. The t statistics indicate that all variables are significant at least at the 0.05 level in explaining the overall customer satisfaction. In the regression model, all the tolerance values are substantially higher than the cutoff value of 0.1 and all the VIF values are significantly lower than the cutoff value of 10, suggesting that multicollinearity between explanatory variables should not be a problem for our model (Kleinbaum et al., 1988). The F value of the estimated model, at 93.159, indicates that the model is highly significant and the adjusted R square of 0.425 implies that about 43 percent of the variation in overall customer satisfaction has been explained or predicted by the eight feature variables jointly.

Table 6. Results of Backward Stepwise Regression

	Standardized Coefficient	t	Significance	Tolerance	VIF
Constant		1.377	0.169		
Comm.	0.057	2.241	0.025	0.876	1.142
Mistake	0.065	2.332	0.020	0.740	1.351
Help	0.084	2.591	0.010	0.553	1.809
Tip	0.116	4.366	0.000	0.818	1.222
Greeting	0.128	3.784	0.000	0.503	1.989
Skill	0.155	5.728	0.000	0.792	1.263
Smile	0.158	5.078	0.000	0.597	1.676
Respect	0.298	9.935	0.000	0.639	1.566

Note: Adjusted R^2 = 0.425, Model F = 93.159, Model significant at the 0.000 level

How to Improve Service Quality?

The estimated regression model sheds light on how Macao casinos may improve their service quality. Table 6 presents the standardized coefficients of the independent variables to show their relative importance in explaining the dependent variable or the overall customer satisfaction. The standardized coefficient shows how important each independent variable is in predicting the dependent variable compared with other independent variables in the model (Grimm & Yarnold, 1995).

Our model shows that Macao casino guests attach the greatest importance to "respect" when evaluating the overall service quality of casinos, with its standardized coefficient almost double those of the next two variables (see Table 6). The importance of "respect" in customer satisfaction is also confirmed by the fact that Wynn, which ranks at the top in overall satisfaction, also has the highest "respect" score among the four companies. Macao casino goers seem not very satisfied with the respect shown to them. In Table 1, for all Macao casinos, "respect" has a mean score of 3.498 and a mode of 4. In other words, the respect shown to guest was perceived as between mediocre and satisfactory. Macao casinos need to educate their employees to show more respect to guests because of its importance in overall customer satisfaction.

In their answers to Question 11, several respondents commented that employees tend to show more respect to winning guests than to losing guests. This issue certainly needs to be raised and corrected when casinos conduct employee trainings. "Respect" is the biggest contributor to customer satisfaction and therefore the most important weapon for a casino to win over clientele. In particular, Galaxy, which was the lowest on "respect" and "overall" (see Table 2) could significantly improve its overall customer satisfaction by enhancing its "respect" feature.

Our model shows that Macao casino guests attach the greatest importance to "respect" when evaluating the overall service quality of casinos.

With a standardized coefficient at 0.158, "smile" is the second most important contributor to the overall customer satisfaction. "Smile" has a below mediocre score of 2.771 in Table 1 and is one of the weakest spots of the Macao casino labor force. Training employees to smile properly could substantially increase customer satisfaction. As reported by *Harvard Business Review* ("Service With...", 2007), in the hospitality industry, the bigger the employee's smile, the more likely a customer would view him or her as competent, and the happier the customer. The report further indicates that the employer and manager should not mandate smiles. Instead, they should create an environment that encourages genuine smiles by making employees happy. For Macao casinos, a harmonious company/employee relationship would certainly help generate genuine employee smiles, and happy employees are likely to create happy customers.

As indicated by its standardized coefficient in Table 6, casino dealers' "skill" is almost as important as "smile" in creating customer satisfaction. Table 1 shows that "skill", with a mean of 3.698, is slightly below satisfactory level. Some respondents indicated in answers to Question 11 that they desire better proficiency and smoothness in game handling. Therefore, Macao casinos should keep training their dealers to make them more skillful and proficient in dealing games.

In Table 6, "greet", "tip" and "help" rank in the middle among the eight service features in their importance to overall customer satisfaction. Here, more attention should be paid to "greet" and "help" since they are also the weak links in customers service as indicted by their below mediocre scores (see Table 1). Wynn's better position in overall customer satisfaction was attributable, at least partly, to its better performance in the two features. Being nice to customers is the way to create customer advocates and increase the market share (Ellis, June 4, 2007). Indifference to customers was a major inadequacy indicated by respondents in their answers to the open-end question. Teaching employees to greet guests in a friendly way and help needy customers proactively should greatly enhance the customer satisfaction, thus helping the casino gain a competitive advantage.

Communication has the lowest standardized coefficient in the table, yet it is still a significant factor in creating customer satisfaction. Communication has a high mean score of 4.304 (see Table 1), indicating an above satisfactory status. This probably can be attributed to two facts. First, the Macao Government has been encouraging its residents to learn the Mandarin language and this helps minimize the language barrier between casino employees and Mandarin-speaking Chinese visitors. Second, the majority of casino players in Macao are from Hong Kong and Canton Province of China where people speak

the same dialect - Cantonese as spoken by the Macao residents. However, employees' English proficiency could become a challenging issue when more international visitors come to Macao after several new mega casino resorts open in the near future. To prepare for increasing international visitors, Macao casinos may need to add English teaching in their training programs.

It must be pointed out that some service quality issues are culture related and their solution may involve a cultural adapting process on the part of the labor force. Table 1 shows that "smile," "greet" and "help" received lower than mediocre scores. The lower ratings on those features may be attributed to, at least partly, the culture. Different from Westerners who are generally more extrovert, Asians are usually less outgoing. As Yu (1999) points out, minimal eye contact is typical of the cultural norm in East Asia and people tend to control their facial expression to a remarkable degree. East Asians are always reluctant to display their true emotions. The introversion and reservedness deeply rooted in the East Asia culture may have kept Macao casino employees from smiling, greeting and helping needy customers proactively. To improve these service features, a change in the cultural mentality on the part of Macao casino employees is needed and that change may take time to happen. One thing Macao casinos could do to facilitate the change is to bring in casino workers from Las Vegas as role models. During its grand opening in late 2006, Wynn Macao had a large team of dealers and floor persons from Las Vegas to assist in its operation and training. Wynn's higher scores on "smile", "greet" and help" are likely due to its more effective training. Mingling Las Vegas casino workers with Macao casino employees in the workplace can provide a good opportunity for the latter to learn from the former and help establish a new customer-oriented mindset among Macao casino workers, thus lifting the service quality up to the Las Vegas standard. Wynn's approach should be expanded to other Macao casinos and practiced on a regular basis, rather than just at the grand opening.

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Cultural differences between Macao and Las Vegas casinos may also affect attitudes toward tipping. In old days when Macao's gaming industry was under the monopoly of STDM, dealers' asking for tips was a common phenomenon and both casino employees and players were used to it. The old habits and traditions of Macao casinos are unlikely to change overnight with the openings of casinos operated by foreign operators. While tip questing in Las Vegas casinos is generally unacceptable, they might be less intolerable in Macao. The high mean score on "tip" in the survey does not necessarily mean that Macao casinos need not to do anything about tip questing. As shown in our regression model, "tip" negatively affects the customer overall satisfaction. Therefore, Macao casinos still need to teach their dealers to refrain from tip questing.

Implications

The findings of this study bear several important implications for the labor force of the Macao casino industry. First of all, the overall assessment of customer satisfaction was above mediocre but below satisfactory level, indicating that there remains room for improvement in the job performance of the labor force as perceived by casino patrons. Macao casinos should enhance their labor force quality from both technical and humanization aspects to raise the overall customer satisfaction.

Second, there were significant differences in employee performance across casino firms. Among the four gaming companies in Macao, Wynn stood out in terms of respecting customers, smiling to clients, greeting and helping guests, and overall customer satisfaction. Therefore, Wynn could be regarded as the benchmark for other gaming companies to improve their labor force quality in serving the customers.

Third, although numerous technical training seminars have been conducted to train and retrain dealers under the sponsorship of the Government and the industry, technical

skill remains a labor force quality issue. Customer evaluation of dealers' skill was below satisfactory. Dealer skill is an important variable in our regression model and was only next to "respect" and "smile" in terms of contribution to customer overall satisfaction. While guests are satisfied with dealers' game handling accuracy, better gaming smoothness and proficiency are still desired. Here, providing constant and continuous on-the-job training could be more helpful than training seminars. Having experienced dealers constantly give guidance to newly hired coworkers in the workplace could help new dealers build up job confidence and proficiency more effectively than in a training seminar, thus raising the overall gaming smoothness and proficiency quickly.

Customer evaluation of dealers' skill was below satisfactory.

Finally, interpersonal features, such as respecting guests, greeting customers, smiling, and being willing to help customers, are important service attributes needing to be strengthened among the labor force. Especially, respect is the most important service attribute to make customers satisfied. The deficiency in those interpersonal service attributes appears more severe than in technical skills.

The Macao casino industry must step up the training of its labor force, especially customer-engaging frontline employees, on interpersonal skills to enhance those service attributes. Here, a customer-above-all philosophy or culture must be established across the industry. It is important for casinos to teach employees interpersonal skills regarding how to respect, greet, help and properly interact with customers. However, without a customer-centric mindset, it would be hard for employees to learn and apply those interpersonal skills in their daily work. A customer-oriented culture is the foundation of labor training programs aimed at improving the interpersonal skills of the labor force.

Limitations and Future Research

This study estimated a model to investigate contributing factors to customer satisfaction only from the perspective of labor force quality. Customer satisfaction, however, may also be affected by casino facilities. The absence of facility factors in our modeling may have resulted in the relatively low adjusted R square. Given the limited goal of this study, which was to find out how labor quality may have affected customer satisfaction, our model has served the purpose well. A future study may expand the research scope beyond labor quality to include both labor force and facility factors in modeling. Such a model would be able to explain or predict a greater portion of variation in customer satisfaction, thus helping Macao casinos raise customer satisfaction via all possible approaches, including facility improvement. Of course, such a study would need a comprehensive survey consisting of more questions.

It should also be pointed out that our survey was written in Chinese and the participants were all Chinese-speaking visitors. International visitors who could not speak Chinese were not invited for the survey. According to the Bureau of Statistics and Census of Macao (BSCM) (2006), in 2006, among the 20.7 million visitors to Macao, 98.14% were Chinese from the mainland of China, Hong Kong and Taiwan. As our findings were based on the survey of Chinese visitors, they may not be applicable to labor quality issues related to international visitors. Future studies may design surveys in both Chinese and English to make the survey responses inclusive of all segments of visitors. Especially, if the portion of international visitors rises after the openings of new mega casino resorts on the Cotai Strip of Macao, it would be necessary to make the survey more inclusive.

Conclusions

Macao is now standing out as the No.1 casino gaming destination in the world in terms of gaming revenue. However, it still has a long way to go before it can become a top gaming destination in terms of service quality. This study has found quality inadequacy in Macao's casino labor force from both technical and humanization perspectives. Many of the service features, especially those related to interpersonal skills were below satisfactory level.

Customer service is produced by casino employees. First-class customer service must be backed up by a first-class labor force. For the Macao casino industry to meet the challenges from emerging gaming destinations in Asia and to remain a top gaming destination in the world, it should not only solve the labor force shortage but also, and more importantly, strengthen its labor quality.

The landscape of the Macao gaming market is changing rapidly due to more new mega casino resorts, including The Venetian Macao-Hotel-Resort, MGM Grand Macau, and City of Dreams, scheduled to open in 2007 and the next several years. The growing saturation in the Macao gaming market, along with rising competitions and more demanding guests, are likely to pose tougher challenges in terms of customer service and labor force performance for Macao casinos in the years to come. Therefore, it would be worthwhile to conduct a similar study after a few years to examine the changes in the service quality of the casino labor force over time. Such a study would enable Macao casino operators and policy makers to evaluate progress achieved, and new problems, if any, in casino human resources, thus providing guidance for Macao to further improve its casino labor force quality and increase its long-term competitiveness among competing casino destinations in the region.

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