

USING THE IMPORTANCE-PERFORMANCE GRID TO EVALUATE INTERNATIONAL STUDENT PERCEPTIONS OF SERVICE QUALITY IN EDUCATION: AN INVESTIGATION FROM AN AUSTRALIAN COLLEGE PERSPECTIVE

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ABSTRACT

Intense local competition and raising operating costs in the higher education sector in Australia has forced a number of institutions to look at foreign students as a potential lucrative market. However, this is a very competitive market with established players such as the U.S., U.K., and Canada. With this in mind, this study aims to ascertain the determinants of quality service in education from the foreign student's perspective using a set of measurement scales based upon the importance/performance paradigm. While the results indicate that most foreign students do not look favorably upon the service quality provided by their respective Australian universities, many students appear willing to tolerate some level of poor service in exchange for the desired credentials. Conclusions and recommendations are provided.

INTRODUCTION

Australian colleges and universities, as with those associated with many Western nations, have witnessed extensive change over the last decade in terms of structural design (e.g., of the curricula and in the integration of technology in how classes are delivered), increasing financial and/or budgetary constraints, and the rapidly increasing diversity of its faculty and students (Dixon and Edwards 2002). In addition (and as with colleges and universities the U.S. and the U.K.), the growing number of international stu-

dents attending college in Australia has increased rapidly over the last decade and this growth trend is expected to continue (Lamkin 2000; Tomovick, Jones, Al-Khatib, and Baradwaj 1996). International students, however, traditionally represent the very best their countries have to offer, with many in possession of solid to superior academic credentials upon arrival. Hence, these students are generally viewed as desirable additions to the university system. As a result, internationals are highly coveted by college recruiters and administrators across the globe.

Fortunately for many college recruiters, the ongoing migration of global cultures has made it easier for qualified foreign students to travel outside their native countries in search of a good university – and in particular, a good Western university. International students have increasingly been attracted to colleges in the U.S., Europe, and Australia because the university systems there offer a first-rate education in many fields that appeal to the diverse interests of the international student population. These include intensive English language programs and training in the type of advanced technology so in demand in the native country (Ewing 1992). Because so many diverse cultures also happen to be located near large university communities, college recruiters are often able to use the global diversity of their own campus population as a recruitment tool to entice foreign students to enroll in their university (Joseph, Ford, and Joseph 1997). The real (as opposed to what has been “sold”) campus experience for foreign students, however, rarely lives up to the recruited student’s heightened expectations (Joseph and Joseph 1997). The ensuing gap between expectations and reality has resulted in lower than average (for all students) satisfaction ratings from international student groups – *across* international borders (Joseph et al. 1997). While student measures of university service quality have been given much study in recent years (Long, Tricker, Rangecroft, and Giroy 1999; Joseph, et al. 1997; Tomovick, et al. 1996), student centered service quality remains a concern for college administrators across the globe. The problem is particularly acute for Australian colleges which must compete against better known and often more prestigious U.S. and European universities.

IMPORTANCE OF ATTRACTING INTERNATIONAL STUDENTS

As indicated, college and university administrators are interested in increasing international student recruitment and therefore encourage their own recruiters to attract the best and brightest from the international pool. As Lamkin (2000)

indicates, a primary benefit derived from having international students enrolled on campus is the effect these students have on broadening the global and cultural perspectives of other students. In addition, faculty can use international students as resources for diverse perspectives, creating what the author describes as “international student as teacher.” Off campus, these students offer cultural awareness and learning experiences to the college community.

From an economic perspective, colleges like the international student because she/he typically pays more of the actual cost of tuition than do in-state/in-country peers whose tuition cost (for a public university education) is largely tax-payer subsidized. The International student thus generally contributes tuition fees equivalent to what, for example, a U.S. out-of-state student pays. The tuition paid by the “out-of-state” or international student thus helps to contribute more (per capita) to the school’s operating costs than would the average in-state or in-country student (Desruisseaux 1998). Competition for international students, and particularly for qualified Asian and European students, is therefore quite fierce. As a result, colleges and universities from nearly every developed nation are increasingly driven to recruit foreign students because they can help bridge the funding gap existing between actual operating costs and what the local government and in-state student tuition pays toward operating expenses (Long et al. 1999).

In addition to the financial issues involved, international students routinely play an integral role in the maintenance of many graduate level programs, particularly at smaller enrollment schools where student demand often influences whether a particular course will be offered. What international students contribute in terms of faculty research support can also not be overstated, especially at schools where the number of foreign students in some graduate programs exceeds that of native-born students. Hence, international students contribute to the quality of academic life at the university in a number of ways, but perhaps none more important than with the financial and

academic contributions these students make to an institution's various programs (Lamkin 2000; Ford, Joseph, and Joseph 1999).

PURPOSE OF THE STUDY

As in the case with older American students who have been re-enrolling in U.S. colleges in record numbers, the typical international student has had previous college experience (Joseph and Joseph 1999). Because of previous experience at colleges in their home country, international students typically have a better sense of what constitutes a quality education than does the average freshman entering college straight out of high school. International students are thus better able to evaluate the quality of the educational service provided (than say, first time entering freshman) because it is usually not their initial educational experience (Cook 1997).

Since most colleges are interested in attracting the best students they can, both domestic and foreign, it is important that administrators obtain as much insight as they possibly can, from as many student sources as possible. Such insight, if integrated into the overall recruitment and administration process, could make a big difference in attracting qualified students. Since so many international students make decisions based on word of mouth, the perceived level of concern for delivering quality service might well prove to be the most effective recruiting tool a college administrator can provide. Conversely, as many service-based organizations have discovered, a poor educational service quality record travels quickly and negative word-of-mouth can easily offset even the most effective ad campaign (Joseph and Joseph 1999). Ongoing investigations by the authors in the area of educational service quality has revealed that for international students, and particularly those attending colleges that have little or no international reputation, word-of-mouth is the most widely used method of international recruitment (Joseph and Stone 2001). DiDomenico and Bonnici (1996) underscore this evidence by indicating that negative word-of-mouth can have a far-reaching and quite

negative impact on the university's ultimate goal of attracting and keeping the best students.

The level of service quality provided by institutions of higher learning is an important area of research because it has such a great impact on recruitment and retention of qualified students. In addition, service quality issues tend to cut across international boundaries and tend to influence decision-making no matter which country of origin the student is from (Tomovick et al. 1996). Not surprisingly, student complaints with the level of service quality provided by their university tend to include both tangible and intangible dimensions associated with the college experience. On the tangible side are complaints that stem primarily from inadequate facilities and/or the lack of available equipment. In terms of intangibles, the absence of reliable and responsive service personnel and the general lack of assurance in meeting such urgent needs as student financing tend to rank high in terms of creating dissatisfaction. Indeed, the overall impression one might receive many student evaluations is that most colleges are nothing more than unsympathetic bureaucracies that display little empathy in terms of the personal attention they provide (Joseph and Joseph 1997).

Based upon the numerous studies done in recent years that have purportedly underlined the need to evaluate the service quality provided by international colleges and universities (Van der Linde 2001; Herguner 2000; Rumalhoto 1999; Cook 1997) it appears that administrators clearly understand the importance of maintaining adequate service quality. Nonetheless, service quality problems remain a burden for many international students, particularly given added turmoil of attending college in a different culture. The ability and the willingness of a school to fulfill some of the very basic service quality functions for the benefit of the foreign student is thus expected to be a deciding factor gaining international student acceptance of the school.

Given the preliminary background as a backdrop, the purpose of the current research was to

reexamine some of the factors that have traditionally been viewed as those most important to foreign students. The focus, however, was to observe the international student service quality phenomenon from an Australian university program perspective. The study had a two-fold emphasis. The first was to investigate the perceived price-quality-value relationship existing between tangible aspects of the university offering (e.g., such as the maintenance and attractiveness of facilities and the presence of modern equipment such as computers and library facilities, etc.). The second was to investigate the same price-quality-value relationship as measured by student evaluations of the intangible aspects of the university offering (e.g., such as assurance needs as measured by the ability of academic personnel to interact with foreign students and their empathy in fulfilling foreign student needs).

PAST RESEARCH ON STUDENT SERVICE PERCEPTIONS

A number of previous studies have studied service quality as a tool in creating competitive advantage at the academic institutional level (Joseph and Joseph 1999; Joseph, Ford, and Joseph 1997; DiDomenico and Bonnici 1996). Implementation of service related total quality management (TQM) programs in financial aid offices as well as benchmarking of course curriculum have also been included as part of the research in improving the educational experience for students (Tang and Zairi 1998; Anderson 1995). Despite the growing concern and increased effort by educational administrators to improve educational service quality, however, current research indicates that relatively large gaps still exist between student expectations of service quality and what academic institutions actually deliver. Research done by Joseph et al. (1997) indicated that previous literature on the assessment of quality in higher education centered on one of three methodologies: *reputational*, *objective indicator*, and *quantitative correlate*. Reputational studies are primarily concerned with the subjective opinions of administrators

not familiar with the academic environment of the school, while objective indicator studies evaluate such academic quality indicators as faculty research output and student SAT scores. The final type, quantitative correlate studies, identify variables that correlate with factors associated with reputable programs (e.g., student to faculty ratios, graduation rates, etc.). The authors of the study concluded that none of these type studies concentrate on what the customer (in this case, the students) expects from his/her university experience. The authors thus proposed that assessments on the quality of service delivered by educational programs should concentrate on two additional areas: *content* and *delivery*. Using an adapted version of the SERVQUAL scale developed by Parasuraman et al., Joseph et al. (1997) then measured service quality as a function of the student's perception of actual service received. That study used a cross-cultural sample of U.S. and New Zealand college students. Somewhat surprisingly, the findings indicated that the only significant difference between the two groups of students was in the area of tangibles – the *least important variable* of the five dimensions evaluated. More alarming, however, was the finding that both groups of students rated their respective universities poorly in such dimensions as reliability and assurance.

In a follow-up study, Joseph and Joseph (1999) noted that there has been increased criticism of the SERVQUAL scale, in terms of its applicability in measuring longer-term services such as education. The authors then developed a set of measurement scales based upon the importance/performance paradigm. The alternative method was chosen because it better identified the most important service attributes while comparing their performance relative to their importance. The factors measured in this case included those that both employers and the graduates themselves are expected to receive or improve on based upon, presumably, the education he or she received while enrolled at the university. In other words, the type of attributes the potential employer looks for in a new employee. Among the factors investigated in this case included: (1)

Interpersonal Skills, (2) Personal Attributes, (3) Reputation of the School, and (4) Well Rounded. Local employers and business students then evaluated the school in terms of how well the students were prepared in each of these areas as compared to how the ideal school would prepare them. Although the results indicated some major differences between employer and student evaluations of the school's ability to prepare students for life outside the university (with employers being more critical of that preparation), students from the New Zealand study tended to be more inclined to accept poor performance and still be satisfied with their overall educational experience. The most important evaluative factor for students appeared, in this case, to be academic reputation of the school and career opportunities.

In keeping with earlier cross-cultural studies that have studied the perception of students' vis-à-vis the service quality of the college education they received, the authors of this paper examined the attitudes of Australian students toward service quality of higher education. This is an important topic for administrators of colleges and universities in Australia, just as it is elsewhere, in terms of recruiting foreign students. Despite generally low student scores for service quality at American colleges and universities, many American schools tend to have no problem attracting quality international students, especially if the school enjoys a worldwide reputation of academic excellence. As the Joseph (1999) study on New Zealand students indicates, many college students can live with the poor service quality provided by their university as long as the academic reputation of the school is well established. While there is little research available to document the level of service provided by exclusive American and European universities, and indeed, many of the more famous institutions may not offer the international student any better service than the better Australian universities, the fact is they enjoy the advantage of reputation. Hence, Australia's competition in the battle to recruit the best international students remains extremely fierce. What may be more damaging

for Australian universities in terms of recruitment is that their American and European counterparts have expanded recruitment efforts to include international student markets that have traditionally been the mainstay of Australian university recruitment efforts.

The next section provides a discussion of the methodology used to capture the attitudes of international students, vis-à-vis the level of service quality provided by Australian colleges. Although the study was primarily designed to provide insight to administrators of Australian colleges, it is believed that the results may serve to promote better student service across the board.

METHODOLOGY

The data for this study was collected in two stages. Stage one involved collecting information from international students on the quality of service provided by the university. Three focus groups were recruited from the list of international students provided by the Australian university system (three campuses) used in the study. The insight obtained from the student volunteers provided the background information necessary for the development of the instrument eventually used to measure student responses to issues related to the service quality provided by their university. Stage two was actually a two step process, the first of which involved developing a survey instrument encapsulating the major factors obtained during the focus group discussions. The second step involved the identification of a relevant sampling frame and the subsequent mail-out. Surveys were mailed to a random sample consisting of 200 foreign students drawn from the total list of foreign students enrolled at the university system used in the study (located in Melbourne, Australia).

The measurement instrument used in the study was divided into four sections. Section 1 dealt with what the students' considered to be the most important factors constituting an *Excellent University* (e.g., in terms of the areas traditional-

ly used to evaluate the quality of education such as those relating to the reputation of the school, teaching quality, quality of facilities, etc.). Section 2 of the survey then asked students to rank what they personally considered to be the most important factors contributing to a *Quality Service Experience* (as might be provided by a university). Section 3 relates to the students' *Perceptions of Their Own University*. Section 4 included *Demographic Information* on the participants of the survey.

The authors of the current study employed a method of assessing service quality based on the methodology used by Ford, Joseph, and Joseph (1999). The underlying theory behind the methodology is on the original Martilla and James (1977) importance/performance paradigm. Briefly, the I/P paradigm is a two-dimensional graphical representation that can be used to demonstrate the mean importance and performance ratings on attributes that are used to assess the quality of a particular service. In this case, the assessments relate to various aspects of the service quality being delivered by the university. As similarly indicated in previous studies using the same methodology, attributes for the current study were selected based upon qualitative assessments obtained from three groups of international students who volunteered to be part of our focus groups. In addition, importance and performance measures for each of the observed factors were listed in different sections of the survey and were thus measured separately. As Ennew, Reed, and Binks (1993) noted, a comparison of mean scores on the performance of service attributes provides a useful method for assessing the ability of a service to meet the needs of its customer base.

RESULTS

Of the 200 foreign students randomly surveyed, 90 usable questionnaires were returned providing a response rate of 45 percent. Of the 90 usable questionnaires, 68 (or 76%) were male students and 22 (or 24%) were female students. The sample figures represented a slightly higher

percentage of male respondents than their actual representation (68%) and slightly less than the actual female representation (32%) in the student body population.

Table 1 (Summary of Means) indicates the list of items generated by the focus groups sessions and then subjectively grouped under five major areas/factors. Respondent scores for how individuals ranked each item in terms of its importance and in terms of how their university performed on each item are listed in two columns. Based upon an analysis of the summary of means (Table 1), respondents appear to be dissatisfied with the level of service quality their university provides. The majority of the items measured in each category indicate a negative gap score. Exceptions include *Excellent university has an ideal location in terms of closeness to shopping, transport and recreational activities*, which has a positive gap score of 0.56; and *University situated in an ideal location*, with a positive gap score of 0.23.

Paired Samples T-tests were then run to test for possible significant differences between male and female respondents. As Table 2 indicates, analysis revealed no significant differences between male and female respondents in terms of how they ranked items by *level of importance*. The same test statistic indicated significant differences in how males and females perceive the *performance* of the university on three of the items in the list (see Table 3). Female respondents in the sample attached a higher perceived performance to the items: *My university has reasonable entry requirements*; and *My university provides students with an environment that is conducive to learning* than their male counterparts. Male respondents assigned a higher performance score to the item *My University has an ideal location in terms of closeness to shopping, transport and recreational activities*.

Respondent scores for the various items were then summed under each category and then ranked for importance (see Table 4). In terms of order of importance, the respondents indicated that items

TABLE 1
SUMMARY OF MEAN SCORES

	Importance	Performance	P-I Gap Score
Cost			
1. Education at reasonable cost	4.04	2.73	-1.31
2. Accommodation facilities at a reasonable cost	3.89	2.74	-1.15
Degree Content and Structure			
3. University provides a wide range of courses to select from	4.24	3.37	-0.87
4. Entry requirements are reasonable	3.84	3.51	-0.33
5. Provides students with a number of specialist programs	4.33	3.16	-1.17
Physical Aspect, Facilities, and Resources			
6. University situated in an ideal location	3.51	3.74	0.23
7. Environment that is conducive to learning	4.23	.12	-1.08
8. Provides students with superb recreation and other facilities	4.03	2.38	-1.65
9. Provides students with a good social life on campus	3.95	2.66	-1.29
10. Provides students with necessary resources that are required for their Education	4.47	2.94	-1.53
11. Provides students with a clean and safe environment	4.38	3.33	-1.05
12. University will have exceptionally good faculty members	4.46	3.02	-1.44
Value of Education			
13. An Excellent university will have a reputable degree program	4.43	3.39	-1.04
14. Degrees offered by an excellent university are known for their academic values	4.45	3.36	-1.09
General			
15. Provides its students with information regarding career opportunities	4.43	.28	-1.12
16. University provides student with information that will help them make up their minds regarding their area of study			
17. Students rely on peer and family influences when it comes to choosing an excellent university	3.24	2.57	-0.67
18. An Excellent university has an ideal location in terms of closeness to shopping, transport, and recreational activities	3.54	4.10	.56
19. An Excellent university has well trained staff with excellent academic qualifications	4.51	3.31	-1.2
20. An Excellent university provides adequate and individualized study assistance	4.33	2.97	-1.36

TABLE 2
TEST OF SIGNIFICANT DIFFERENCES OF IMPORTANCE BY GENDER

Importance	Mean Score		T-Test Significance
	Male	Female	
Cost			
1. Education at reasonable cost	3.9583	4.1463	NS
2. Accommodation facilities at a reasonable cost	3.8125	4.0000	NS
Degree Content and Structure			
3. University provides a wide range of courses to select from	4.2292	4.2683	NS
4. Entry requirements are reasonable	3.8542	3.8293	NS
5. Provides students with a number of specialist programs	4.2292	4.4634	NS
Physical Aspects, Facilities, and Resources			
6. University situated in an ideal location	3.3676	3.6829	NS
7. Environment that is conducive to learning	4.1875	4.2195	NS
8. Provides students with superb recreation and other facilities	4.1020	3.9512	NS
9. Provides students with a good social life on campus	4.0408	3.8537	NS
10. Provides students with necessary Resources that are required for their education	4.4694	4.4878	NS
11. Provides students with a clean and safe environment	4.5510	4.1951	NS
12. University will have exceptionally good faculty members	4.4082	4.5256	NS
Value of Education			
13. An Excellent university will have a reputable degree program	4.4490	4.4146	NS
14. Degrees offered by an excellent University are known for their academic values	4.5510	4.3415	NS
General			
15. Provides its students with information regarding career opportunities	4.2449	4.5854	NS
16. My university provides its students information that will help them make up their minds regarding their area of study	4.0612	4.2683	NS
17. Students rely on peer and family influences when it comes to choosing an excellent university	3.2245	3.2683	NS
18. An Excellent university has an ideal location in terms of closeness to shopping, transport and recreational activities	3.5306	3.5610	NS
19. An Excellent university has well trained staff with excellent academic qualifications	4.5510	4.4634	NS
20. An Excellent university provides adequate and individualized study assistance	4.2857	4.4000	NS

TABLE 3
TEST OF SIGNIFICANCE ON PERFORMANCE BY GENDER

Performance	Mean Score		T-Test Significance
	Male	Female	
Cost			
1. My university provides education at a reasonable cost	2.7143	2.7561	NS
2. My university provides accommodation at a reasonable cost	2.5870	2.9250	NS
Degree, Content, and Structure			
3. My university provides a wide range of courses to select from	3.3469	3.4146	NS
4. My university has reasonable entry requirements	3.4583	3.5854	0.028
5. My university provides students with a number of specialist programs	3.0208	3.3415	NS
Physical Aspects, Facilities, and Resources			
6. My university is situated in an ideal location	3.6531	3.8537	NS
7. My university provides students with an environment that is conducive to learning	2.9796	3.2927	0.046
8. My university provides students with superb recreation and other facilities	2.1837	2.6341	NS
9. My university provides its students with a good social life on campus	2.5000	2.8537	NS
10. My university provides students with all the necessary resources	2.9184	2.9750	NS
11. My university provides its students with a clean and safe environment	3.4490	3.1951	NS
12. My university has exceptionally good staff members on their faculty	2.9592	3.1000	NS
Value of Education			
13. My university has a reputable degree program	3.3333	3.4634	NS
14. The degrees offered by my university are known for their academic value	3.3913	3.3415	NS
General			
15. My university provides its students with information regarding career opportunities	3.2857	3.2927	NS
16. My university provides its students with information that will help them make up their minds regarding their area of study	2.8776	2.9024	NS
17. When it came to choosing my university, I relied on peer and family influences	2.4082	2.7805	NS
18. My university has an ideal location in terms of closeness to shopping, transport and recreational activities.	4.1224	4.0732	0.000
19. My university has well trained staff with excellent academic qualifications and practical experience in the area	3.1633	3.4878	NS
20. My university provides adequate and individualized study assistance	2.9592	3.0000	NS

related to the content and structure of the degree were most important, followed by items related to the value of the education, the physical facilities, the cost of the education, and finally, general attributes (such as location, etc.).

IMPORTANCE PERFORMANCE

Interestingly, while positive gap scores were noted for only two items in the list, the Importance-Performance Grid (Figure 1) indicates that the two most important dimensions as ranked by the sample of respondents – *Degree* (content and structure) and *Value of Education* – both fall in the “**keep up the good work**” quadrant. One possible explanation is that the perceived performance on these two important dimensions falls in what may be the respondent’s “zone of tolerance.” In other words, while it appears obvious that student expectations for service are higher than what the university actually delivers, the group of students sampled here is, apparently, satisfied with the performance being delivered on the two aspects of the educational experience they previously ranked as being the most important. Interestingly, it could be argued that the degree program itself, and the value of the education (as it relates to the academic reputation of the school, etc.) are perhaps the two areas most impacted by the efforts of academicians and college deans and perhaps least affected by administrators. Hence, one of the conclusions that might be gleaned here appears to be that students may tolerate less than satisfactory service delivery if they believe the value of the education they receive meets or exceeds expectations. Put another way, students appear to have their priorities straight when it comes to ranking the most important virtues of the college experience.

Another area that ranked high in importance according to its positioning on the grid was the quality of the *physical facilities* provided. According to the results, students indicated that physical facilities appear to be in need of improvement (e.g., **concentrate here**). The fact that students view the adequacy and maintenance of facilities as both important and as an

area in need of concentration should indicate to administrators the importance of creating a physical environment that meets students needs. This factor, however, appears to be rather broadly based, and includes such items as recreational facilities, social activities, and more academically focused areas (such as providing adequate resources and support staff). Nonetheless, because anecdotal evidence tends to suggest that maintenance of facilities is one of the major responsibilities of administrators, then administrators should concentrate much of their attention on providing the highest quality facilities possible. And, because the quality of facilities (to include safety and resource issues) may be one of the first and most easily visible measures a student sees when s/he visits a university for the first time, facilities need to be kept in top condition.

The *cost of the education*, ranked as the fourth most important factor by the students sampled, fell in to the quadrant **low performance**. Educational costs, while an important aspect of any college student’s educational experience, can be particularly irritating for international students. One of the principle fears of international students, and especially those from Asian nations, has been the decline in the purchasing power of their currency. Indeed, changing economic conditions have historically had the biggest impact on international education (Cummings 2001) As a result of the decline in many Asian economies, students from many of these countries are often forced to work while pursuing their education. It would therefore be anticipated then, that hidden costs (such as unexplained student activity fees and unanticipated tuition fees) would be a major source of concern. In addition, whereas the availability of student assistantships and work-study grants might tend to offset some of the costs associated with a college education, the absence of financial aid could possibly be a very real source of dissatisfaction. Hence, administrators should pay special attention to the financial needs of the students they recruit and not promise more than can reasonably be delivered. If this student sample could be generalized across the spectrum of

TABLE 4
RANKING OF DIMENSIONS IN ORDER OF IMPORTANCE

1.	Degree (content & structure)
2.	Value of education
3.	Physical Aspects, Facilities and Resources
4.	Cost of Education
5.	General

international students, colleges would appear to score somewhat below average for performance in this area.

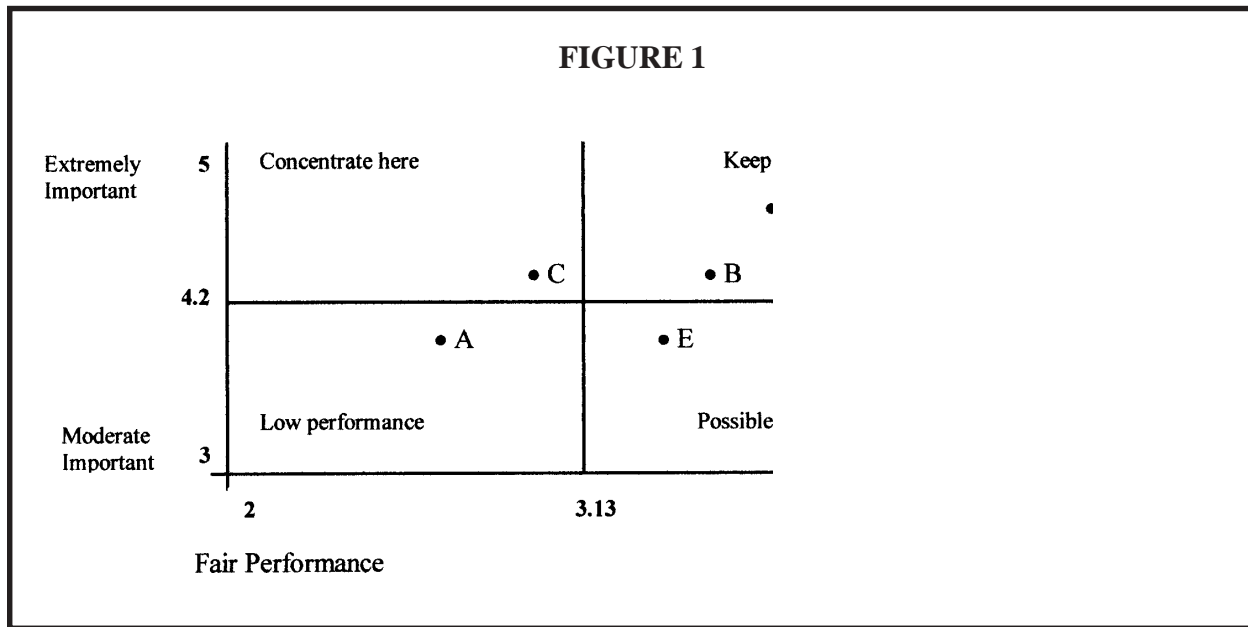
Finally, and somewhat surprisingly, students from the sample tended to rank as fairly low in priority those items related to *general quality of life issues*. Interestingly, the items listed under the “general” category are also some of the of the key areas of concentration for administrators. While studies have suggested that safety and economic considerations are important (Cummings 2001) factors for students, areas such as school sponsored career counseling and study assistance programs, and social and recreational programs, in this case were rated as being of minor importance to the international student’s educational experience. Consequently, administrators (as evidenced by the scores of the sample surveyed here) are paying too attention in this area. Hence, the sample rated the general area as **overkill**.

In order to help assess the content validity of the information provided by the student focus groups, a factor analysis was run on the items developed in the survey. Table 5 indicates the rotated factor scores. The eigenvalue for factor six is 1.189 with 66.5 percent of the total variance in the items attributable to six factors. The six core factors the authors identified as relevant to the study include the factors we have labled: *Environment/Facilities, Cost/Faculty, Reputable Program, Information/Resources, Location/Family Influences* and *Degree (content & structure)*.

CONCLUSIONS AND RECOMMENDATIONS

While the analysis of gap scores appears to indicate overall dissatisfaction with the level of service quality being delivered, the importance-performance grid also tends to indicate that the Australian colleges used in the survey were performing adequately in the areas considered most important. In fact, the two most important dimensions (i.e., *Degree Content and Structure* and *Value of Education*) both fell in the “**keep up the good work**” quadrant. Nonetheless, other areas of importance such as *facilities* and *costs* scored lower in terms of student evaluations (e.g., **concentrate here** and **low performance**). In terms of the general quality of life issues, the colleges evaluated apparently spend a great deal of time and effort to provide quality service in an area that is less important to the overall experience. Students indicated that the colleges used in the study were perhaps placing too much emphasis on matters unrelated to the educational experience itself (e.g., **overkill**).

Researchers conducting research in the area of educational service quality over the past decade have used a wide variety of methodological measures in the attempt to capture student perceptions of what constitutes service quality (Joseph and Stone 2001; Cook 1997; Joseph et al. 1997). As previously discussed, criticisms of the most widely discussed and most often used measure of service quality, SERVQUAL, have been numerous. Among the criticisms include: (a) the idea that the scale may not be applicable to all



forms of service delivery; (b) it may be a unidimensional construct and not five dimensional as conceived (Cronin and Taylor 1992), and, (c) some service settings consist of a series of service encounters and thus, must be measured individually (Carman 1990). As with any measurement technique, the *importance-performance* grid may be subject to an equal number of valid criticisms. Nonetheless, the authors believe the I-P methodology offers an alternative to SERVQUAL and one that may be more useful in measuring educational service quality because of its ability to detect importance differences between the various service offerings. Clearly, students attach greater weight to some services than they do to other services being offered – hence, administrators should put their emphasis on the services most highly valued. One of the possible recommendations for administrators considering a marketing strategy would therefore be for university administrators to develop their own importance-performance grid to guide their service strategy.

For example, the third most important dimension (relating to costs) falls into the “**concentrate here**” quadrant, indicating that students believe the university system should be paying more attention to this aspect of their educational experience. The next step in the

process could very well be a more in-depth investigation of this issue in order to determine just where the complaint lies. An adapted SERVQUAL scale devoted, for example, to the area of financial service delivery could then be developed. The P-I grid method thus offers a good starting point to conduct more in depth research to identify shortfalls and develop concrete and feasible offerings. The marketing strategy developed must encompass the most important attributes to make sure that the students’ needs are being met.

As to the specific findings from this study, the international students surveyed believed that the degree programs offered and the overall value of the education received are satisfactory. Interestingly, both areas appear to be a function of the excellence of the academic community as opposed to any specific service delivery mechanisms. The Australian colleges sampled are, apparently, putting the emphasis where it belongs (at least according to the students sampled).

The cost of a college education, is, along with concerns for safety, one of the most important issues for international students (Cook 1997). As with their American counterparts, hidden fees associated with student activities and sports programs often come as a shock and a disappoint-

TABLE 5
FACTOR ANALYSIS

Factor 1 (Environment/Facilities)	
Good social life	0.79541
Superb recreation and other facilities	0.76159
Environment conducive to learning	0.68999
Clean and safe environment	0.53291
Factor 2 (Cost)	
Provides education at reasonable cost	0.83013
Provides accommodation at reasonable cost	0.78067
Factor 3 (Reputable Program)	
Degrees known for their academic value	0.82871
Reputable degree program	0.66853
Provides adequate and individualized study assistance	0.60788
Staff with academic and practical experience	0.59149
Factor 4 (Information/Resources)	
Provide information regarding career	0.80944
Provide information regarding courses on offer	0.59692
Provide resources that are required for their education	0.54283
Factor 5 (Location/Family Influences)	
Located close to shopping and other facilities	0.83353
Ideal location	0.79959
Family and Peer Influence choice of university	0.45963
Factor 6 Degree(Content/Structure)	
Provide wide range of courses	0.78291
Entry requirement is reasonable	0.68299
Offer a range of programs to suit your needs	0.54290

ment to international students, many of whom never utilize the services offered. In addition, sudden tuition increases, even when relatively small, have an adverse effect on foreign students who must constantly be concerned with currency fluctuations). One way to assist these students may be to guarantee some sort of student financial aid package that includes stable tuition costs, the ability to opt out of student activity fees, and work study guarantees.

While administrators appear somewhat constrained in terms of budgets for newer facilities,

students may be more impressed with the fact that existing facilities are properly maintained (clean, well-lit, properly functioning, etc.). In addition, administrators should do their best to instill confidence in their ability to creatively utilize the resources they do have.

Finally, and somewhat surprisingly, the international students in this study appeared to place the least importance on the areas that appear to be the principle focus of administrative efforts at many universities. In other words, making the students feel comfortable in their new environ-

ment by offering educational and career counseling services, providing extra-curricula activities that appeal to diversity, and providing ample on-campus social opportunities. The students in this sample rated this area as **overkill**. The bottom line here appears to be that international students are enrolled for an education and so don't value the "feel-good" attempts of college administrators. As a result, administrators should attempt to focus their attention on the areas that count the most – the international students will find their own sources of social activity.

In closing, Promotional activities developed might be better focused if they truly reflect the importance of the attributes indicated by the students on the I-P grid. For this study, promotions might best attract student attention if:

- ◆ All promotional materials clearly stated the range of courses available, the entry requirements for each program, and all the specialist programs available.

- ◆ The university attracted quality academic staff and advertised their achievements, qualifications, and service to the community. This will help enhance the degree's reputation.
- ◆ Universities used testimonials from employers who could attest to the quality of the graduates. This could also build up the academic reputation of a university.

Overall, the results of this study lead us to believe that universities in this study are doing a satisfactory job from the foreign students' perspective. The primary shortcoming to the study is its lack of generalizability across international borders due to the limited size of the sample. Nonetheless, we believe the overall concept of utilizing the Importance-Performance Grid to initially evaluate the areas of importance is a good first step in ultimately satisfying the needs of increasingly diverse student populations.

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