

Cross-cultural comparisons of consumer satisfaction ratings

A perspective from Albert Hirschman's theory

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Abstract

Purpose This paper seeks to propose Albert Hirschman's theory of "exit, voice and loyalty" as a complementary conceptual framework to Hofstede's cultural dimensions and use them in conjunction to compare consumer satisfaction with services across cultures.

Design/methodology/approach A model of satisfaction with complex services (higher education) is developed and then tested in two different cultures, Colombia and Spain, with a sample of 879 students. Structural equation modeling based on the partial least squares algorithm is used to test the proposed model.

Findings Colombian students are more satisfied with the educational system than Spanish ones. This is explained by cultural and contextual differences that pose greater restrictions on accessibility to higher education, provide fewer choice alternatives and present more switching costs for the Colombian student.

Originality/value This study applies the conditions of Hirschman's theory in an international setting, offering a rich basis for understanding differences in consumer satisfaction that accounts for intra national diversity.

Keywords Customer satisfaction, National cultures, Higher education, Students, Colombia, Spain

Paper type Research paper

1. Introduction

The impact of consumer satisfaction and quality perceptions on long-term performance of service firms is supported not only by theory but also by empirical studies: investment in improving consumer satisfaction has been demonstrated to provide superior returns to shareholders (Aksoy *et al.*, 2008). It should, therefore, be critical for marketers to find ways to improve consumer satisfaction ratings.

Research in services marketing provides a better understanding of consumer satisfaction drivers, which is especially important in a multicultural environment where the global consumer is more a myth than a reality (Ueltschy *et al.*, 2007). Satisfying consumers in a global market is difficult because national culture exerts an influence on consumer perceptions and expectations (Donthu and Yoo, 1998), on tolerance to service failure (Laroche *et al.*, 2004) and on the relative importance of service quality dimensions (Ueltschy *et al.*, 2007).

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Studies on the role of culture in service quality perceptions and consumer satisfaction have generated an important stream of research (Donthu and Yoo, 1998; Furrer *et al.*, 2000), and these studies are based primarily on Hofstede's (1980) cultural dimensions: Individualism/collectivism (INDCOL) is related to the degree to which individuals are self-centered or integrated into groups. Power distance is the level of acceptance of the hierarchical distribution of power. Masculinity/femininity is the gender-related values held by individuals in a given society (masculine: independence, ambition and results, feminine: quality of life, service and interdependence). Uncertainty avoidance reflects the feelings and behaviors of the individual when faced with unknown situations; more uncertainty avoidance cultures show preference for rules and safety measures in order to minimize such situations. Short- and long-term orientation (Hofstede and Bond, 1988) refers to values such as perseverance, stability and respect for traditions.

Although these five dimensions are considered useful in explaining and comparing aggregate national behavior (Singh, 2006), some researchers (Chan and Wan, 2008; Tung, 2008) point out that the influence of culture on quality perceptions and consumer satisfaction is not as systematic as Hofstede's dimensions suggest. Furthermore, these dimensions are not enough in capturing the differences in subgroups within a culture, which makes us look for complementary approaches of cross-cultural comparisons.

We propose the "exit, voice and loyalty" theory (Hirschman, 1970) as a conceptual framework to understand differences in consumer satisfaction with services across cultures. The theory identifies the different behavioral alternatives that a dissatisfied consumer can employ, depending on the nature of the industry and the consumers' perception of available alternatives. We use the bases of Hirschman's theory in conjunction with Hofstede's (1980) cultural dimensions in the higher education service to hypothesize differences in student satisfaction in two countries: Colombia and Spain. This approach allows us to account for not only the general cultural values of a consumer because of the country but also the context-specific characteristics of the service sector under study and the perceptions of different consumer groups.

The paper starts with summarizing Hirschman's theory followed by building a model of student satisfaction based on this theory, Hofstede's cultural dimensions and the educational systems of both countries. The methods used for testing this model, the results, their discussions and implications are presented in the final sections.

2. Albert Hirschman's theory

Hirschman's (1970) theory of "exit, voice and loyalty" proposes three mechanisms that a consumer can choose from when the quality of products or services provided by an organization declines:

- exiting or changing supplier;
- using the voice (to make a claim, a complaint or comments to third parties); and
- loyalty (voluntary or involuntary).

These three responses to dissatisfaction with the service depend on the nature of the industry and the consumers' perception of available alternatives. Exiting and changing supplier are the most likely options in a competitive industry, while using the voice, either individually or collectively, is the most likely option in case of a monopoly. Choosing between the mechanisms is not that straightforward in another type of industry that

Hirschman calls loose monopoly, which is in a situation where the providers of a service hold a near-monopoly control of supply but where some competition exists.

In a loose monopoly, these three mechanisms are conditioned by the availability of alternatives, the level of sophistication of some consumers, the consumers' loyalty, the likelihood of the mechanism's success, the repurchase cycle and the relative cost of actions to be taken. These six conditions of Hirschman's theory have been studied by other authors (Andreasen, 1985; Gronhaug and Arndt, 1980), and we discuss their relationship with consumers' behavior.

The service alternatives depend not only on the real supply of the service but also on the consumers' perceptions whether the available alternatives can provide better service. In this case, full information about the alternatives plays an important role in the decision for switching providers. The level of sophistication of consumers is measured by their perceptiveness, knowledge and experience. A more sophisticated consumer tends to seek better alternatives as compared to the average consumer. Loyalty to the provider can be conscious or unconscious, since some consumers have to stay with a provider because of the imposed switching barriers. Before taking any action, consumers will consider the results of choosing either the exiting or voicing options on service improvement. The repurchase cycle will be a relevant factor when choosing mechanisms since the result cannot be seen in the immediate near future given that the supplier may react slowly or not even notice the consumer action. Finally, there may be associated costs of taking actions, like psychological or social factors that inhibit consumers from taking any action.

Various authors have applied this theory in different settings for evaluating consumers' behavior but none have done so in an international setting. Gronhaug and Arndt (1980) show differences in consumer complaints between public and private sector, Andreasen (1985) applies it in the health care sector, while Singh (1991) compares three different industries at varying levels of loose monopoly.

3. Student satisfaction: model and international comparison of results

3.1. Higher education in the light of Hirschman's theory

Higher education may be classified as a loose monopoly on the basis of the conditions introduced above. We elaborate on how they may be present in a higher educational context, *vis-a-vis* the six conditions as outlined by Hirschman:

Availability of alternatives. The supply of universities and other higher education institutions is generally restricted by the government, which can be even more constrained by high registration fees. In the case of switching university or program, the process may not be easy since the information on recognition of credits cannot be readily available.

Consumer sophistication. Sophisticated consumers in higher education are those students coming from more educated families, are more intelligent than other students and have a nonconformist personality. These more advanced students are prone to notice service deficiencies and are more likely to take actions such as talking to the teacher or superiors, learning by themselves, attending other classes or changing to other courses or program.

Consumer loyalty. A student that notices service quality declines may not take actions because either he is conditioned to the good image or reputation of the university (belonginess feeling) or feels committed to the persons that form the university

(friends, colleagues, teachers). This loyalty is more motivational, whereas some students just must stay in because of high switching barriers.

Likelihood of mechanism success. There is a low probability that the service at the current university will improve by a student complaint or if he leaves the institution. The success probability by using complaints is low because they may seem isolated since each course is particular as it is every teacher's way of imparting classes. Voice will only be successful if it is collective.

Repurchase cycle. The duration of educational programs is from two to five years, and although students may recognize deficiencies over the course of the program, they may have expectations of future improvements in the service.

Relative costs of actions. The costs of leaving or changing a university are high because of the student's psychological inhibitions, self-image and social costs. Besides, starting over in a new institution can be considered as waste of time.

3.2. Application context

Although these six attributes that condition the mechanism choice are common to every loose monopoly industry, they will vary from country to country depending on the industry structure, the educational system specificities, the national culture and the individuals' characteristics. One country/system may offer more alternatives to choose from, have a more educated population, and be more responsive to individuals' actions and citizens at the same time that can be more prone or coerced to take actions. These reasons make it necessary to examine the principal characteristics of the countries of study based on national culture, the educational system and the public universities in which the empirical study is to be carried out: a Colombian University (CoU) and a Spanish University (SpU).

Colombia and Spain were selected for their similarity on one level but disparity on another. The two countries share the same language, religion and many societal values, yet one is a developing country (Colombia) while the other is a developed one (Spain). This contrast helps us to capture the countries' environmental differences in terms of economic development and cultural value systems that are associated with consumers' service perceptions (Malhotra *et al.*, 1994). The two countries are also very different on the INDCOL dimension (33 points on a 100-point scale). This is a sufficient difference on a focal cultural dimension (Steenkamp, 2001). INDCOL accounts for variability in service expectations (Donthu and Yoo, 1998; Lin *et al.*, 2007) and consumptions (Singh, 2006) across countries and culture.

We next compare the two contexts on the basis of the reports on the educational systems of the two countries published in the project National Education Systems (Sistemas Educativos Nacionales), which were carried out by the Organization of Ibero-American States for Education, Science and Culture.

Higher education in Colombia is not as readily accessible to citizens as compared to that in Spain because the number of places available is considerably lower than the demand. For example, in 1990, there were 284,669 applications for the 192,700 places available in public universities of Colombia. In Spain, "the aim is to respond to the constitutional principle of education, academic freedom and the autonomy of universities", the capacity of the institutions being the only restriction on places. Public universities in Colombia enjoy a greater prestige than private ones because of the difficulty of gaining admission into them. Public universities in Colombia hold additional

entrance exams that supplement the state entrance exams. It is important to point out here that the majority of Colombian universities are private whereas the Spanish ones public.

Faculty members in Colombia are less research oriented and more focused on teaching. The minimum requirement for lecturers in Colombia is prior pedagogical training and then promotion is based on additional studies and research. This system also serves as an incentive for faculty members to undergo continual training. Most university lecturers are full time and enter the university through public competitive exams. In Spain, at least half of the faculty members must possess a doctorate (30 per cent in bachelor, 70 per cent in undergraduate and 100 per cent in postgraduate) and 60 per cent must be full-time employees of the university. Positions are obtained through public competitive examinations which each university sets. There is no general plan for training the teachers and each university takes responsibility for this either collectively or individually. It should be noted that research is increasingly becoming more relevant in Spanish universities.

Class sizes in Colombian universities tend to be small, whereas at Spanish universities, they are larger and follow a lecture format. The small class size not only gives room for student participation but also gives the faculty an opportunity to follow individual students' progress.

3.3. Hypotheses development

We use the six conditions proposed by Hirschman along with two of Hofstede's cultural dimensions (INDCOL and power distance) to develop two sets of hypotheses. The first set identifies key variables that should be examined along with student satisfaction, its determinants and consequences. This is the traditional form of studying satisfaction when one is interested in not only looking at the satisfaction level but also its effects as it provides a wider understanding of the phenomenon being studied. The second set of hypotheses predicts the differences in the level of satisfaction and the model between the two countries.

3.3.1. Student satisfaction model: determinants and consequences of student satisfaction. Students perceive barriers to switching even when there are options for change, making it difficult for them to switch from one institution or program to another. They may also think that individual actions (complaints, claims and comments to third parties) would not be very successful in solving the problem. Therefore, most students remain with the service and depending on the personal characteristics of the individual, try to look for other means of improvement. Based on these loose monopoly attributes, both the service quality and the service outcomes should be evaluated periodically. Service quality (or service performance) has been a traditional determinant of consumer satisfaction in the services marketing literature (Szymanski and Henard, 2001) but service outcomes have been studied less. Complex services with long delivery cycles, like education, require assessment at the intermediate outcome level in addition to at the final level (Kelly, 2005). Thus, we expect both student perceptions of service quality and service outcomes to be determinants of satisfaction.

Educational services are not only complex from the supplier's point of view but also because of the service consumer: the student, who contributes in a significant way to its success (Guolla, 1999; Hill, 1995). The student involvement theory (Astin, 1999) for higher education posits that students who put more effort and energy in their academic experience will obtain better learning and personal development.

Student contribution can be seen as many things: energy devoted to studies, time spent on campus, active participation in student organizations, interaction with faculty members and other students. These contributions, called coproduction in the services marketing literature, will also be related to the student's satisfaction level. Thus, we hypothesize:

H1. Student satisfaction will be positively influenced by the student-perceived quality of the service, the outcomes obtained from the service and the student's coproduction.

An implication of the student involvement theory (Astin, 1999) is that the student coproduction should impact student satisfaction through the service outcomes obtained, that is a student who is very involved in his formation process will get better outcomes and thus be more satisfied. However, service outcomes will depend not only on the student coproduction but also on what he receives from the higher education institution. Thus, we expect that service outcomes will depend jointly on both the service perceived quality and the student coproduction:

H2. The service outcomes variable will be influenced both by the quality of the service and the student coproduction.

According to the loose monopoly attributes of higher education, evaluating satisfaction consequences as loyalty to the institution or intentions to change university may not be the most suitable outcomes to assess in this context. An appropriate consequence of satisfaction should be one that summarizes the consumers' service experiences over time (Johnson *et al.*, 2001) such as corporate image or attitudes towards the university. Therefore, the student satisfaction model will include the attitude of the student towards the institution from a global perspective, based on what the student thinks and on the perceptions of other interest groups:

H3. The attitude towards the university will be positively influenced by the students' satisfaction.

Figure 1 shows the proposed relationships between the variables, which are specified as follows:

Student satisfaction f (perceived quality **b1**, service outcomes **b5**, student coproduction **b4**, e_2)

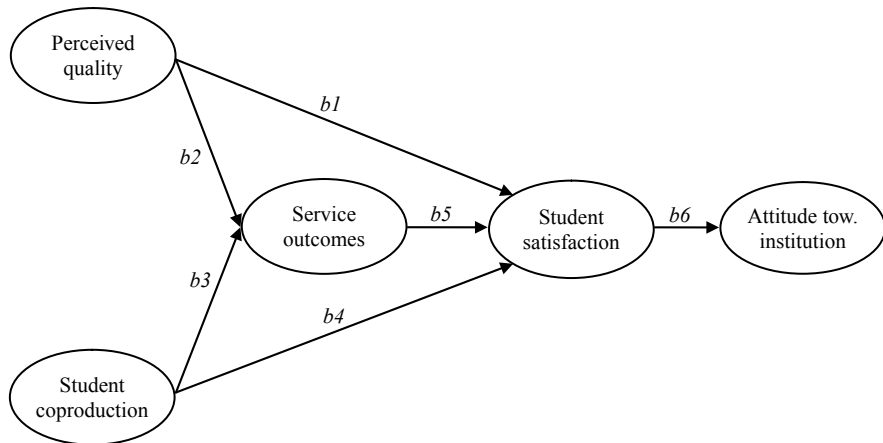
Service outcomes f (perceived quality **b2**, student coproduction **b3**, e_1)

Attitude towards institution f (student satisfaction **b6**, e_3)

(where e_i is the vector of other factors not included in the model or an error term).

3.3.2. International service comparison. Two of Hofstede's cultural dimensions (Geert Hofstede Cultural Dimensions, 2008) are combined with the six conditions of Hirschman's theory to compare consumer perceptions in the countries being studied. One cultural dimension is INDCOL that has an index of 13 points out of a 100 in Colombia as opposed to 46 points in Spain, showing that Colombians are more collectivistic. The second one is power distance with an index of 67 in Colombia and 52 in Spain, indicating that inequality of power and wealth is greater in Colombia than in Spain. These cultural characteristics may bring about a social desirability bias in the Colombian sample.

Figure 1.
Proposed student
satisfaction model



Students give higher satisfaction ratings as they may be more respectful towards institutions, management and faculty members and have a stronger feeling of wanting to give a good impression of the group. Service quality expectations have also been shown to be higher in cultures that are individualistic and have lower power distance (Donthu and Yoo, 1998). Since Spain is both more individualistic and has lower power distance as compared to Colombia, expectations of Spanish students will be higher. Higher expectations have been shown to adversely affect satisfaction.

Larger class sizes in Spain may negatively influence satisfaction (Ting, 2000). Conversely, the small class sizes in Colombia that allow for greater level of interaction between students and faculty members will result in high levels of satisfaction. These considerations lead us to propose that:

H4. The level of satisfaction of a Colombian university student will be higher than that of a Spanish university student.

Higher education has been characterized as a loose monopoly, but looking at both contexts in light of Hirschman's theory, one can claim that the Colombian context presents a higher degree of loose monopoly than the Spanish one. There are fewer alternatives available, students are not as well informed as the Spanish ones, student "loyalty" is more mandatory than motivational and the relative costs of actions is higher than in Spain. These attributes lead to two types of pressures: real and psychological ones. A real pressure for the Colombian student is the opportunity to study in the public university, which is prestigious because of the hard process to get in. The limited information available for switching universities increases this pressure. The psychological pressures encompass the self-perception and the others' perceptions towards a student who fails in this system (e.g. is not intelligent, is lazy and wasted the time and the opportunity). These pressures are stronger in the Colombian environment because of the closer ties between individuals – Colombia is more collectivistic than Spain (Hofstede, 1991). Therefore, we expect the impact of student coproduction on service outcomes and the impact of student coproduction on satisfaction to have greater impact in Colombian universities than in Spanish ones because a Colombian student

puts in a greater effort to access education, places a higher value on the opportunity to study at the university, contributes more to positive service outcomes and spends more energy to remain part of the system:

- H5.* The influence of student coproduction on service outcomes and the influence of student coproduction on the level of student satisfaction will be greater in the Colombian context than in the Spanish one.

4. Methodology

4.1. Sample

Data were collected in 2003 and 2004, some time after term had begun and with sufficient time having elapsed since the examination period of the previous term. The survey was answered at the beginning of lecture classes, with a completing average time of about nine minutes. Stratified random sampling was used with the degree programs that the students were enrolled in used as the criterion for stratification. The sample comprised of 879 students from the final two years of the undergraduate program. In the Spanish university, 596 students from Business Administration and Economics programs filled in the questionnaire, while the sample from the Colombian university consisted of 283 students of Business Administration and Information Systems. Sample distribution was similar to the population distribution, and socio-demographic characteristics (age, grades, gender and employment) were also representative in the survey samples. Table I presents a descriptive of the sample (mean and SD).

4.2. Measures

Student satisfaction, its three determinants and their consequence were treated as latent variables. Each one of them was measured indirectly by means of various indicators which were either in the form of a question or a statement. The questionnaire was pretested with a small sample of students and was found to be and reliable and easy to use. Most of the items were based on services marketing studies (Andreassen Lindestad, 1998; Bryant and van Amburg, 2000; Dabholkar *et al.*, 2000; Selnes, 1993), and others were developed following comparative evaluations (Olsen, 2002) and collective utility (Kelly, 2005) suggestions.

Student satisfaction was assessed with five indicators: overall satisfaction before and after performance assessment, comparison with prior expectations, comparison with an ideal institution and perception of family's satisfaction with the service.

Perceived quality was measured using three overall indicators: high standards of service quality, quality of service based on experience and comparison of service quality delivery with other public institutions.

Student coproduction was measured using five technical and functional measures related to the student role as effective participant of his/her own educational experience: doing and extending assignments proposed in class, interest in learning more and active participation in class (motivational effort), positive attitudes towards the university, efforts to integrate in the university's cultural and social life (attitudes, behaviors and motivational direction) and efficient exploitation of the opportunities generated by the use of the public service.

Service outcome was a summary assessment of the essentiality of the service. The European Foundation for Quality Management, EFQM (1995), suggests that it is the responsibility of higher education institutions to evaluate outcome achievements

Measure/statistic	CoIU			SpU		
	Mean	SD	Loading	Mean	SD	Loading
<i>Student coproduction</i>						
Positive attitudes towards the university	7.3	1.43		6.0	1.55	
Doing and extending assignments proposed in class	7.2	1.61		5.4	1.86	
Interest in learning more and active class participation	7.5	1.56		5.0	1.94	
Efforts to integrate in cultural and social life	6.7	2.15		5.0	2.01	
Efficient exploit of opportunity of public service use	7.8	1.79		5.9	1.69	
<i>Perceived quality</i>						
Overall quality based on experience	6.9	1.80	0.75	5.3	1.42	0.58
Comparison of service quality with other institutions	8.1	1.73	0.77	5.4	1.67	0.72
High standards of service quality	7.1	1.68	0.80	5.0	1.50	0.82
<i>Service outcomes</i>						
Contribution in terms of problem solving	8.0	1.47	0.77	5.6	1.71	0.66
Planning and organizational abilities	7.9	1.48	0.74	5.7	1.89	0.69
Self confidence, independency and personal initiative	8.0	1.63	0.72	6.1	1.99	0.55
Theoretical knowledge and practical skills	7.6	1.58	0.79	5.4	1.67	0.69
Overall positive learning outcomes	7.8	1.55	0.83	5.6	1.55	0.78
<i>Student satisfaction</i>						
Overall satisfaction after performance assessment	7.5	1.52	0.76	5.4	1.56	0.77
Overall satisfaction before performance assessment	6.9	1.59	0.79	5.4	1.55	0.77
Comparison with prior expectations	6.8	1.70	0.75	5.2	1.71	0.65
Perception of family's satisfaction with the service	8.0	1.67	0.53	5.9	1.57	0.59
Comparison with an ideal institution	6.8	1.93	0.63	4.3	1.65	0.58
<i>Attitude towards institution</i>						
Positive overall opinion for the institution	8.1	1.64	0.84	5.5	1.60	0.78
Competency of the institution	8.0	1.74	0.89	5.3	1.66	0.80
Institution's contribution to society	7.8	1.78	0.81	5.3	1.69	0.70
Reputation according to friends, colleagues and family	8.7	1.22	0.51	5.7	1.68	0.70
Reputation compared with public competitors	8.9	1.34	0.60	5.7	1.96	0.69

Table I.
Measures

in terms of added value to knowledge, skills and personal development. The measures are based on the contributions of the university towards improving the students' analytical, planning and organizational capabilities; increasing their self-confidence, independence and initiative; providing theoretical and practical skills and improving positive learning outcomes.

Attitude towards the institution was measured with five indicators that captured perceptions of the said institution on overall perception, competency, reputation according to significant others, reputation compared with public "competitors" and contribution to society.

Methods suggested by Sin *et al.* (1991) and Hult *et al.* (2008) were followed to establish data equivalence. Functional, conceptual and category equivalences were assured prior to the data collection by the literature review and the validation of the questionnaire. Interviews with researchers and students in both countries were performed to ensure the validity of the instrument. Although the language in both cultures is the same (Spanish), an iterative process was used with two researchers originally from one country and living in the other and also two local researchers to check the meaning of the items. The survey was pretested and revised for slight differences. Sample equivalence was sought by employing similar sampling frames in both countries: a large public university,

in an intermediate city within similar undergraduate programs. Metric equivalence was obtained by making sure that the psychometric properties from both cultures had the same coherence and structure (Tables II and III).

4.3. Methods

Student coproduction was modeled as a formative construct, so we assessed the measures' quality following the process suggested by Diamantopoulos and Winklhofer (2001). There were no indications of multicollinearity among the measures nor of content and empirical redundancy; thus, we retained all the measures for the model estimation. The other four variables in the model (perceived quality, service outcomes, student satisfaction and attitude towards the institution) were modeled as reflective constructs. Tables II-IV present the summary of statistics for both samples. Convergent validity was assessed using Cronbach's alpha (Nunnally, 1978) and the internal consistency measure ρ proposed by Fornell and Larcker (1981). Both measures have values above 0.7 indicating good consistency of the constructs. Discriminant validity was tested by comparing the average variance extracted (AVE) of each construct with the shared variance between constructs (Tables II and III). For each construct, the AVE's squared root exceeds its

No.	Construct	α	ρ	(1)	(2)	(3)	(4)	(5)
1.	Coproduction			<i>0.742</i>				
2.	Perceived quality	0.85	0.91	0.514	<i>0.879</i>			
3.	Service outcomes	0.92	0.94	0.666	0.693	<i>0.878</i>		
4.	Satisfaction	0.88	0.91	0.531	0.822	0.742	<i>0.831</i>	
5.	Attitude tow. institution	0.91	0.94	0.502	0.730	0.740	0.704	<i>0.854</i>

Table II.
Validity of latent constructs Colombian University ColU

Note: Italic values in the diagonal represent AVE values

No.	Construct	α	ρ	(1)	(2)	(3)	(4)	(5)
1.	Coproduction			<i>0.658</i>				
2.	Perceived quality	0.79	0.88	0.315	<i>0.841</i>			
3.	Service outcomes	0.88	0.91	0.480	0.648	<i>0.822</i>		
4.	Satisfaction	0.88	0.91	0.405	0.780	0.720	<i>0.822</i>	
5.	Attitude tow. institution	0.91	0.93	0.339	0.777	0.686	0.773	<i>0.856</i>

Table III.
Validity of latent constructs Spanish university SpU

Note: Italic values in the diagonal represent AVE values

Latent construct	ColU		SpU	
	Communality	R^2 (%)	Communality	R^2 (%)
Perceived quality	0.772		0.707	
Service outcomes	0.771	61	0.674	50
Satisfaction	0.691	73	0.675	69
Attitude tow. institution	0.730	50	0.733	60

Table IV.
Average communality by latent construct and variance explained in the model

shared variance with other constructs. Moreover, each construct shares more variance with its measures than with other measures of the model (Hulland, 1999). Item reliability was assessed by the loadings with their respective construct. The individual loadings were all statistically significant and are presented in Table I; they are above or close to the recommended threshold of 0.7. The average communality of the measures in the model are higher than 0.67 and are presented in Table IV.

We estimated the proposed model using structural equations based on the partial least squares (PLS) algorithm, which consists of an iterative process that maximizes the predictive and explanatory power of the model. The model is assessed in terms of R^2 values of the dependent variables in the model (Table IV). Comparisons between the estimations in both universities were made by inserting dummy variables in the final stage of the PLS algorithm. The model was further analyzed in both countries for subgroups based on socio-demographic variables to evaluate intra-national diversity (Tung, 2008).

5. Results

The validity and reliability of the measures as well as the global model were evaluated by confirming the psychometric properties of measures and constructs. It was concluded that the proposed model reasonably fits the data for this service in both universities and also explained a high level of student satisfaction: 69 per cent in the Spanish university and 73 per cent in the Colombian university. Table V shows the estimation of the standardized coefficients.

The *H1* is partially supported. All of the determinants of satisfaction were found to be significant except for coproduction for the Colombian sample. We found support for the *H2* as both perceived quality and coproduction were found to significantly affect service outcomes. The *H3* is also supported since satisfaction is significantly related to attitude towards the institution.

We calculated indices for each variable (using the formula for the customer satisfaction indices (Fornell *et al.*, 1996) on a scale ranging from 1 to 100) from the weights that the PLS algorithm assigns to each of the measures used. These are reported in Table VI.

Colombian students are more satisfied than Spanish ones, thus supporting the *H4*. They have a better perception of the service as all of the indices are significantly higher. We tested the *H5* by contrasting structural changes with the Chow test (Hulland, 1999). The test indicated that all of the effects in the model are statistically equal in both contexts, except that for coproduction on service outcomes. This effect

		Structural relationship effect	ColU	SpU
<i>H1</i>	b1	Perceived quality → satisfaction	0.590**	0.541**
	b4	Coproduction → satisfaction	0.010	0.074*
	b5	Service outcomes → satisfaction	0.326**	0.332**
<i>H2</i>	b2	Perceived quality → service outcomes	0.476**	0.552**
	b3	Coproduction → service outcomes	0.420**	0.305**
<i>H3</i>	b6	Satisfaction → attitude towards institution	0.704**	0.772**

Note: Significance at: *0.05 and **0.01 levels

Table V.
Estimation of the
proposed model

is greater by 6.5 per cent for the ColU student, which suggests that the Colombian student is more closely linked with the outcomes they obtain from their learning process. No significant differences were found between samples in the other proposed effect of coproduction on satisfaction. Thus, *H5* is partially supported.

Bearing in mind the need to evaluate intra-national diversity (Tung, 2008) and emphasizing the different perceptions from the consumer's point of view proposed by Hirschman, the model estimations (not shown here) were evaluated for differences between subgroups within each cultural context. We summarize the results of the model estimation analyzing additive and multiplicative effects with dummy variables for the following characteristics: gender (women or men), marks obtained (low-to-average or high marks), job (current/previous work or no job experience), age (below 23 or above 24) and the study time (day or evening). When we refer to one group, it is compared to the opposite one.

Various significant differences are observed between the subgroups of students in the Colombian university along the socio-demographic characteristics. First, we found differences in students over 24 years of age and students who attend classes in the evening. Both groups have better perceptions of the outcomes obtained from the service. Women are more satisfied than men and those who do not have work experience show a more favorable attitude towards the university. The effect of quality on satisfaction (**b1**) is greater for men and for those who do not have work experience. The effect of perceived quality on service outcomes (**b2**) is greater for students with low-to-average marks and for those who have work experience related to the degree program. The effect of student coproduction on service outcomes (**b3**) is greater for those students with high marks, for those who do not have work experience, for those under 23 years of age and for those who attend day-time classes. The effect of coproduction on satisfaction (**b4**) is significant only for students under 23 years of age and the effect of outcomes on satisfaction (**b5**) is greater for those who work currently.

In the Spanish university, no difference is found in the level of service outcomes, satisfaction or attitude towards the university. However, the following differences are observed: the effect of quality on satisfaction (**b1**) is greater for students with low-to-average marks, the effect that perceived quality has on service outcomes (**b2**) is greater for students over 24 years of age and the effect of coproduction on satisfaction (**b4**) is greater and significant only for some of the subgroups: students with low marks, those with work experience, those over 24 years of age and students who attend classes in the evening.

6. Discussion

We applied Hirschman's (1970) theory as a complementary approach to Hofstede's cultural dimensions to make international comparisons of service satisfaction ratings.

Index	ColU	SpU
Coproduction	72	55
Perceived quality	71	47
Service outcomes	76	52
Satisfaction	69	47
Attitude towards institution	80	50

Table VI.
Indices for the variables
of the model

A model of satisfaction was proposed, contrasted and compared with data obtained from two universities in two different countries, Spain and Colombia. We found that student satisfaction is greater in the Colombian context, where there are greater constraints on university access, fewer alternative choices and the relative costs of changing or leaving the university are higher.

The conditions of Hirschman's theory in combination with two of Hofstede's cultural dimensions (INDCOL and power distance) helped identify the variables that determine student satisfaction and the ensuing consequences of this satisfaction. Perceived service quality, service outcomes and student coproduction were modeled as determinants of student satisfaction. Both the perceived quality and the outcomes directly influence student satisfaction but the effects of the student coproduction on service outcomes and the student coproduction on satisfaction vary between universities and within each cultural context. On the one hand, we find that the effect of coproduction on service outcomes is statistically significant in both universities and is significantly greater in the Colombian context indicating that the Colombian students' coproduction is more related to the outcomes they obtain from the higher education experience than the Spanish student. On the other hand, the effect of coproduction on satisfaction, although significant for the entire Spanish university sample, is only significant for some subgroups of students in both universities. In the Spanish university, this effect is significant for students who get low marks, those with work experience, those above 24 years of age and those who attend evening classes. An explanation is that educational involvement for these students is more costly and difficult, which is logical given that they divide their time between studies and work or their studies are a greater challenge when compared with other groups of students. Yet, in the Colombian university, the effect of coproduction on service outcomes was significant for the exact opposite group: students who get high marks, those who do not have work experience, students under 23 years of age and day-time students. These results suggest that the service perceptions are different from Spanish students, at least where they involve students' input in their educational process. In the Colombian system, students are expected to dedicate a great deal of time to their studies, spend more time at the university, interact more with faculty and fellow students, all of which requires a greater commitment from students attending day-time classes. The consequence of student satisfaction was the attitude towards the university, which turned out to be significant in both contexts. This is in line with Johnson *et al.* (2001), who suggest that the attitude towards the institution should be a consequence of cumulative satisfaction instead of being a determinant of it. We observe that the culture of a country is important for understanding the general or "aggregate" perception that consumers have of a service, but within each culture, a service may have different connotations for individuals.

It is important to highlight that the approach suggested in this paper is intended to illustrate the potential of the theory of Hirschman in understanding the differences in satisfaction ratings in different contexts, extending the aggregate view of results conditioned only to cultural values rather than posting this theory as a mechanism to overcome the limitations of current approaches for comparison. This approach is useful to make a step forward in the international marketing literature since it offers the bases for understanding intra-national diversity (Tung, 2008) from the consumers' point of view.

Managerial implications

For international service providers, the findings from our study suggest that only taking into account consumers' cultural values is not enough to understand what drives consumer satisfaction and the variations on the ratings consumer give to service provision. Consumers may perceive the service in many different ways depending on the perception of other service alternatives, their experience and education, the type of relationship with the current service provider, to name a few. Marketing practitioners should look at the six specific conditions suggested by Hirschman and understand how different groups of consumers perceive them. The derived information may suggest specific ways for improving service offerings and also patterns for segmenting consumers within each country.

Hirschman's theory sheds light on improving the foundations of educational systems. Higher education service is a loose monopoly but occupies different positions on the continuum of loose monopoly (Singh, 1991). However, it is evolving towards a more competitive nature where the loose monopoly conditions start to dilute (Hart and Rush, 2007). Apart from discussing what the optimal location of the educational services should be on this continuum, we can suggest ways to create an environment in which the student stays because he or she values the service. The first condition suggested by Hirschman (availability of alternatives) may be smoothed by optimizing the process by which the students are selected. Knowing what universities expect from students will bring student perceptions closer to reality. Universities can design accurate profiles of students that match their program goals. When access to universities is restricted by costly registration fees, a grant program for promising students will help improve the perception of alternatives. This can also be done by recognizing credits between institutions both at the national and at the international level.

The second condition suggested by Hirschman (consumer sophistication) may be promoted by encouraging voice actions. Different channels for students to express their opinions, collectively through student representatives and individually through surveys could be developed. Both formal and informal channels could be used. It is important to note that a collective voice should be encouraged over individual voices. Systems that make students well informed about their rights and duties will not only make them more "sophisticated" but also empower them.

The third condition (consumer loyalty) should be sought through integrating students into the academic and social systems in line with Tinto's (1975) theory. Students who are integrated into these systems tend to be more satisfied and, therefore, less likely to drop out of the university. They will stay not only because of high switching costs but also because of motivational loyalty.

The fourth condition (likelihood of mechanism success) may be improved by tracking all students that start the university so that dissatisfied students and drop-outs may not only be identified but also the causes for their dissatisfaction and dropping out. The collective voice must be encouraged and institutions should ensure that they respond to it in a timely manner.

The fifth condition (repurchase cycle) suggests that the assessment of satisfaction should be done regularly. It is not necessary to reduce the duration of a degree program in order to shorten the repurchase cycle but efforts to provide modular-design degrees could contribute to increasing satisfaction levels and improving repurchase.

The sixth condition (relative costs of actions) may be addressed by simplifying switching from one program to another and creating a possibility to “exit within the system”. This flexibility allows students to move easily to programs that better match their profiles (Hart and Rush, 2007). Perceptions of socio-psychological costs decrease when switching within the system is made easy. Minimizing costs associated with voice actions, for example by developing user-friendly on-line systems that collect students’ opinions, is another suggestion.

From the proposed satisfaction model and its estimates for the Colombian and Spanish universities, results suggest that attention must be paid towards increasing students’ coproduction in their formation process. Higher involvement in academic and non-academic activities creates better service outcomes, which increases student satisfaction. Findings from our study suggest that some of the practical guidelines of the “Bologna Process” may be appropriate in stressing the active participation of students in their formation process and using small classes that allow for more interaction between students and faculty members. Both lead to a better perception of service outcomes and satisfaction by the student. However, some measures may be taken to increase student satisfaction. First, it is necessary to make the students more aware of the value they receive while at university and second better communication of service outcomes to create rational expectations about knowledge and skills gained during the formation process can make the student a better coproducer and a more rational user of the higher education service.

Limitations and future research

The findings of this study suggest that Hirschman’s theory is an important resource for analyzing services in different contexts. Neither the six conditions of Hirschman’s theory nor Hofstede’s two dimensions used in the study were directly measured. They were applied either implicitly or existing indices used. Future studies could measure these to establish the soundness of this approach even more.

Previous studies that have used only Hofstede’s dimensions (Malhotra *et al.*, 2005; Ueltschy *et al.*, 2007) could be replicated by also including Hirschman’s perspective to improve the understanding of the results.

We used two countries for comparison. The study should be undertaken in other countries involving different cultural values to strengthen its validity. The study should also be applied to other services presenting different degrees of loose monopoly conditions to evaluate the utility and generalizability of the Hirschman’s theory.

All in all, and despite all of the limitations of this study, we believe that the approach suggested by Hirschman along with Hofstede’s cultural dimensions provide complementary information which facilitates a better understanding of the differences in service satisfaction perceptions across countries. We expect that this study will open up new lines of research and allow service providers to better fit their services to different groups of consumers with varying preferences and situations.

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